THE HISTORY of HEALTH,

AND THE

ART of PRESERVING IT:

OR,

An Account of all that has been recommended by Phyſicians and Philoſophers, towards the Preſervation of Health, from the moſt remote Antiquity to this Time.

To which is ſubjoined,

A ſuccinct Review of the principal Rules relating to this Subject, together with the Reaſons on which theſe Rules are founded.

By JAMES MACKENZIE, M. D. Phyſician lately at Worceſter, and Fellow of the Royal College of Phyſicians in Edinburgh.

By ſurfeiting many have periſhed, but he that taketh heed prolongeth his life. ECCLUS.

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M. DCC. LIX.

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NATURAL HISTORY MUSEUM

THE CONTENTS.

PART I.

THE introduction, exhibiting the Plan of the work *page* 1

CHAP. I.

Of man's food before the fall 18
Moſes the beſt hiſtorian of remote antiquity 20
Probable uſe of the tree of life 21
Early advances towards the improvements of man's food by huſbandry 27
Why loſt in ſome countries 29
Longevity of the firſt generations infers the wholeſomeneſs of their diet 33

CHAP. II.

Food of the firſt inhabitants of Greece 35
Arcadians the moſt noted ſhepherds 37

The

The golden age.----Wherein conſiſted its felicity 39
Aliment of the Greeks improved by huſbandry 40
Benefit of the arts, and gratitude to the inventors of them 41
Bread and milk the firſt mild and wholeſome aliment found out by man 43

CHAP. III.

Firſt permiſſion to eat fleſh 44
This opinion controverted 45
Invention of wine and beer 51
The various ſorts of aliment uſed by men from the creation to the time of Moſes 53

CHAP. IV.

Of the writers on aliment 54

CHAP. V.

Neceſſity invented every branch of phyſic 62
Firſt rudiments of it among the Babylonians and other nations 64
Cures recorded in the temple of Æſculapius 65

Egyptian

Egyptian method of preſerving health 67
Firſt inſtances of the Gerocomicè 69
Pythagoras firſt recommended moderation and temperance as conducive to health 72
Herodicus inventor of the medicinal gymnaſtic 73
Plato's abſurd cenſure of this invention 74
Herodicus not the author of the three books on diet, publiſhed among the works of Hippocrates, as Le Clerc conjectures 78

CHAP VI.

Of Hippocrates 81
His general and particular precepts relating to the preſervation of health 82

CHAP. VII.

Of Polybus 128
Of Diocles Caryſtius 130
Of Cornelius Celſus 133
Of Plutarch 146
Of Agathinus 162

CHAP.

CHAP. VIII.

Of Galen 165
Such of his rules of health as were but slightly touched upon before his time 167

CHAP. IX.

Of Porphyry, Dr. Cheyne, and others who condemn the uſe of animal food 190

CHAP. X.

Of Oribaſius 199
Aetius 200
Paulus Ægineta 201
Of Actuarius and others, as Friar Bacon and Lord Verulam, who imagined that health might be preſerved, and life prolonged, by antidotes and panaceas 202

CHAP. XI.

Of the Arabian phyſic 212
Its commencement 213
Return of phyſic from the Eaſt to Europe 220
Of Rhaſes. 214

Of

Of Avicenna 216
Of the Tacuin or Elluchaſem Elimithar 221

CHAP. XII.

Of the Schola Salernitana, Dr. Armſtrong, and other authors who wrote of the preſervation of health in verſe 222

CHAP. XIII.

Of Marſilius Ficinus and others who joined aſtrology with phyſic for the preſervation of health 228
Of Platina Cremonenſis 234

CHAP. XIV.

Of Lewis Cornaro, and ſome who, in order to preſerve health, were ſo curious as to weigh their aliment 235

CHAP. XV.

Of the phyſicians who wrote on health in the ſixteenth century before Sanctorius, as
Thomas Philologus of Ravenna 245
Vidus Vidius 246

Hieronimus

Hieronimus Cardanus 247
Alexander Trajanus Petronius 251
Levinus Lemnius 252
Jaſon Pratenſis 253
Joannes Valverdus de Hamuſco 254
Antonius Fumanellus Veronenſis ibid.
Gulielmus Gratarolus 255
Henricus Ranzovius ibid.
Æmilius Duſus ibid.
Ferdinandus Euſtachius 256
Oddi de Oddis ibid.

CHAP. XVI.

Of Sanctorius 257
His uſeful diſcovery of inſenſible perſpiration, and remarks upon it 258
Of thoſe who adapted his method to their reſpective climates, as
Dodart in France 260
Keil in Britain ibid.
De Gorter in Holland 261
Rogers in Ireland 262
Bryan Robinſon ibid. 263
Linen in Carolina ibid.

Of

Of their aphoriſms relating to the preſervation of health 265
Of inhalation by the reſorbent veins, treated on by Jones 287

CHAP. XVII.

Of foreign writers concerning health after Sanctorius, as
Rodericus a Fonſeca 291
Aurelius Anſelmus 292
Franciſcus Ranchinus ibid.
Rodolphus Goclenius 293
Claudius Deodatus ibid.
Joannes Johnſtonus 294
Petrus Lotichius ibid.
Bernardin Ramazzini 295

CHAP. XVIII.

Of the Britiſh writers on health, *viz.*
Sir Thomas Elliot 299
Thomas Morgan 300
Edmund Hollyngs 303
William Vaughan 304
Thomas Venner 305
Andrew Boorde 307

Edward Maynwaring 308
Thomas Phayer 309
William Bulleyn 310
Francis Fuller ibid.
Dr. Wainwright 311
Dr. Welſted 313
Dr. Burton 315
Dr. Arbuthnot 317
Dr. Lynche 320
Dr. Mead 322

PART II.

CHAP. I.

A SHORT view of concoction or the mechaniſm by which our aliment is digeſted 331
Of the circulation of the blood and its conſequences 348
From both theſe it will be obvious to perceive the ground and reaſon of the rules laid down for the preſervation of health, and the expediency of obſerving them 358

CHAP.

CHAP. II.

A ſummary of the rules of health proper to be obſerved with regard to
Air 367
Aliment 370
Exerciſe and reſt 377
Sleep and wakefulneſs 383
Repletion and evacuation 385
The paſſions and affections of the mind 388
Some other general rules 393

CHAP. III.

Of the different temperaments of the human body, with the rules of health adapted to them reſpectively, *viz.*
The choleric 397
The phlegmatic 398
The melancholic ibid.
The ſanguine 399

CHAP. IV.

Of the different periods of human life, with precepts of health peculiar to each of them, *viz.*
Infancy 402

Youth

Youth 405
Manhood 410
Old age 412

CHAP. V.

Of the various circumſtances and conditions of men, with ſuitable directions to all of them, conſidered as
Robuſt or delicate 415
Free or ſervile 417
Wealthy or indigent ibid.

CHAP. VI.

Of the prophylaxis, or ways to prevent approaching diſtempers 419

CHAP. VII.

Of longevity
The natural marks of it 427
The means of attaining it 428
The riſe and fall of the transfuſion of blood from one animal into another 431
The concluſion 435

THE

THE INTRODUCTION,

ADDRESSED TO THE

RIGHT REVEREND

ISAAC

Lord Biſhop of WORCESTER.

MY LORD,

WHEN I found it expedient to retire from buſineſs, your Lordſhip was pleaſed, affectionately, to remind me, "That "we are all obliged to do good in every ſta- "tion and period of life, and that a phyſician "of long experience may contrive ſome me- "thod of being uſeful even in retirement."

I was not ſurpriſed at any inſtance of humanity from your Lordſhip. I had long known your ſympathy with the diſtreſſed, and your zeal to relieve them, having been the firſt to whom you thought proper to

A com-

communicate your noble deſign of eſtabliſhing an infirmary at Worceſter; which, in ſpite of many diſcouragements, has flouriſhed for ſeveral years; and will, I hope, long flouriſh, to the glory of GOD, the relief of the helpleſs, and your own perpetual honour. I knew alſo, that your Lordſhip's advice to me was no unmeaning compliment, and did not proceed from any partiality in my favour, becauſe you made the ſame benevolent repreſentation to another phyſician who had lately declined practice.

PROMPTED thus by your kind admonition, and animated by your example, I revolved in my mind which way I might be uſeful in my preſent ſituation. My age rendered me unable to purſue the painful practice of a country-phyſician; I could not ride long journeys to remove diſtempers: I determined therefore to endeavour, in ſome meaſure, to prevent them, by acquainting thoſe that will reſtrain their appetites, and hearken to reaſon, with the moſt effectual

rules

rules to preſerve health: for certain it is, that from mens ignorance or contempt of ſuch rules, thouſands never arrive at that period of life which their ſtrength of conſtitution would have reached with proper care.

SHOULD I ſucceed in this endeavour, it was no unpleaſing reflection to do ſome good beyond the grave: and ſhould I not ſucceed, yet ſtill my ſubject afforded me an agreeable amuſement.

THAT I might add a greater weight and authority to theſe rules, I reſolved to trace them from their ſources, by giving the hiſtory of the whole art of preſerving health, from the moſt remote antiquity down to the preſent time. But ſo few and ſhort are the records we have of the firſt ages of the world, that it is no eaſy matter to collect facts from them which have any relation to this ſubject.

SIX things are known to be neceſſary to the life of man, commonly called the SIX

NON-NATURALS *, namely, *aliment*, *air*, *exerciſe* and *reſt*, *ſleep* and *wakefulneſs*, *repletion* and *evacuation*, together with the *paſſions* and *affections* of the *mind*; in the proper uſe and regulation of which the art

* The very ſound of the epithet NON-NATURAL, when applied to *aliment*, *air*, *ſleep*, *&c.* ſo eſſential to the ſubſiſtence of mankind, is extremely ſhocking: nor is the long continuance of this ill-fancied appellation, which aroſe merely from the jargon of the Peripatetic ſchools, leſs ſurpriſing. The origin of it appears, in a paſſage where Galen divides things relating to the human body into three claſſes: Things which are NATURAL to it; things which are NON-NATURAL; and things which are EXTRA-NATURAL. I ſhall ſubjoin his own words from the vulgar Latin verſion, claſſ. vii. lib. de ocul. partic. tertia, cap. 2. "Qui ſanitatem vult "reſtituere decenter, debet inveſtigare ſeptem res NATURA-"LES, quæ ſunt *elementa*, *complexiones*, *humores*, *membra*, "*virtutes*, *ſpiritus*, et *operationes*.—Et res NON-NATURALES, "quæ ſunt ſex, *aer*, *cibus*, *potus*, *inanitio* et *repletio*, *motus* "et *quies*, *ſomnus* et *vigilia*, et *accidentia animi*.——Et res "EXTRA-NATURAM, quæ ſunt tres, *morbus*, *cauſa morbi*, et "*accidentia morbum comitantia*." From this fantaſtical diſtinction, the epithet NON-NATURAL firſt aroſe, and has been retained in common uſe to this day; tho' it cannot be underſtood without a commentary; by which phyſicians ſeem to make an apology for the impropriety of it. Hoffman, for inſtance, and ſome others, when they apply the appellation NON-NATURAL to *air* and *aliment*, are obliged to ſubjoin the following explanation. "A veteribus hæ res "NON-NATURALES appellantur, quoniam extra corporis "eſſentiam conſtitutæ ſunt." Diſſertatio 3. decad. 2.

of

of preſerving health principally conſiſts. Among theſe ſix, *aliment* is the only one of which mention is made before Pythagoras *; or (as ſome think) Herodicus †, who joined *exerciſe* with *aliment*, in order to preſerve health. For this reaſon, no more ſhould be expected from me, in looking over the firſt and obſcure ages of the world, than to throw all the light I can collect upon that ſingle article of the *Aliment of mankind*, until the gradual improvement of arts opens a more extenſive ſcene.

THE Samian philoſopher made ſome ſmall advances toward the conſervation of health; Iccus and Herodicus proceeded a little farther: but it was the maſterly hand of Hippocrates that (to uſe Galen's expreſſion) firſt opened the way ‡ to this and every other

* Pythagoras flouriſhed about 530 years before Chriſt.

† Herodicus was cotemporary with Plato, about 360 years before Chriſt. Vid. Helvici theatr. hiſt. p. 62. & 69.

‡ Omnem ad medicationem viam aperuiſſe mihi videtur Hippocrates, ſed ita tamen ut ea curam diligentiamque ad abſolutionem deſideret. Gal. de method. medend. lib. 9. cap. 8. Thoma Linacro Anglo interprete.

branch

branch of the medical art, though in moſt branches it has been greatly improved ſince his time.

And here it may be aſked, Since all the learned ſeem to agree, that Hippocrates was the father of phyſic, why ſhould I not begin my hiſtory with him? and to what purpoſe do I trouble the reader and myſelf with impertinent conjectures about what paſſed in the dark ages of the world? To this, my Lord, I anſwer, That as Hippocrates * flouriſhed within 430 Years of the Chriſtian æra, it is not an unreaſonable curioſity to inquire, if nothing was done with regard to the preſervation of health for upwards of 3500 years from the creation. The gradual advances made by the human mind in cultivating the ſciences, is a very entertaining ſubject; and the more intereſting health is, the more one is amazed that it ſhould lie ſo long neglected. And we ſhall find, in the courſe

* See the moſt learned Dean Prideaux's connect. part 1. book 6. p. 396.

of this hiſtory, that the firſt men were obliged to alter and improve their diet, and that the preſervation of health was actually ſtudied many ages before Hippocrates; tho' the extreme difficulty of attaining any conſiderable knowledge therein, rendered its progreſs very ſlow; and the want of records *, to tranſmit what was truly valuable among the productions of the Greeks, has, in a great meaſure, deprived us of the benefit of their experience. But farther, we learn from Hippocrates himſelf, whoſe authority is deciſive in this point, that the medical art was actually cultivated to a great degree before his time †. And ſurely it was not foreign to my

* We are informed by Pliny, (lib. 7. cap. 56.), that Pherecydes of Scyros firſt taught the Greeks the compoſition of diſcourſe in proſe; and that Cadmus of Miletus was the firſt who taught them to write hiſtory: and yet both theſe authors flouriſhed but about 113 years before Hippocrates. How was it poſſible, therefore, that any accurate account of what was done in phyſic by the Greeks before that time, ſhould be tranſmitted to us? See Sir James Stewart's excellent defence of Sir Iſaac Newton's chronology, p. 107. 108.

† At vero in medicina jampridem omnia ſubſiſtunt, in eaque principium et via inventa eſt, per quam præclara multa

longo

my purpoſe to ſearch whether or no the branch I treat of, had received any improvement.

But to return: Tho' Hippocrates has given us excellent precepts on all the *ſix articles neceſſary to life*; yet thoſe precepts lie ſcattered throughout his works, with ſo little connection, that, to render them univerſally uſeful, it was neceſſary to bring them under one regular view; which, ſo far as I know, was never attempted before.

Celsus and Plutarch are the only valuable writers we have on the ſubject of health in that long interval of time between Hippocrates, who was cotemporary with the Perſian Xerxes, and Galen, who lived under the reign of Marcus Aurelius Antoninus.

longo temporis ſpatio ſunt inventa, et reliqua deinceps invenientur, ſi quis probe comparatus fuerit, ut ex inventorum cognitione, ad ipſorum inveſtigationem feratur. De priſ. medic. p. 8. lin. 42. verſionis Fœſii.

Galen

GALEN (if we throw aſide his Peripatetic rubbiſh) has written one of the fulleſt and beſt treatiſes * on the preſervation of health that we have at this day; but it was expedient to contract his exuberance, and, for preventing repetitions, to retrench what he has copied from Hippocrates.

THE latter Greek phyſicians, the Arabians, and indeed all who have treated on this ſubject, from Galen to Sanctorius, have done little more than copy Galen, except a few whimſical authors; among whom, ſome have recommended a total abſtinence from animal food; ſome a very ſpare diet, weighing temperance by the balance; ſome depended for health on panaceas, and ſome on the ſtars.

AMONG the more modern phyſicians, who wrote before the diſcovery of the cir-

* Galeni liber extat de tuenda ſanitate, quem omnibus aliis qui hodie ſuperſunt, præferimus. Conringii introductio, cap. 13. theſ. 7.

culation, Sanctorius deſerves to be named with honour; who, by an amazing application, and a method little thought of before, has not only confirmed the obſervations of the ancients with regard to health, but has alſo added many valuable rules of his own. His method has been purſued by ſome phyſicians of different nations, that have, with great induſtry and judgment, accommodated many of his aphoriſms to their reſpective climates.

LATE writers on this ſubject, enlightened by the knowledge of the circulation, have rather illuſtrated and enforced the precepts laid down before, than made any new or important diſcoveries; and yet ſome of them addreſs the public with ſuch an air of ſuperiority, as if themſelves had invented the rules which they only tranſcribe. Of this number is Frederic Hoffman, (in many reſpects a phyſician of great merit), who, in a diſſertation which he calls *The ſeven rules of health*

health *, after borrowing five of the ſeven from Hippocrates, and one from Galen, as your Lordſhip will ſee at the bottom of the page, ſubjoins this curious rule of his own, *viz.*

* Septem leges ſanitatis. Hoffm. Diſſert. 3. decad. 2. Lex prima. Omne nimium, quia naturæ eſt inimicum, effuge. Hoffm.——*Omne nimium naturæ inimicum.* Hippoc. Aphor. 51. ſect. 11.

Secunda. Ne ſubito muta aſſueta, quia conſuetudo eſt altera natura. Hoffm.——*A multo tempore conſueta, etiamſi fuerint deteriora, inſuetis minus turbare ſolent.* Hippoc. Aphor. 50. ſect. 11.

Tertia. Animo hilari ac tranquillo eſto: quia hoc optimum longæ vitæ et ſanitatis præſidium. Hoff.——*Lætis diffunditur per univerſum corpus calor, atque plus foras ejus motus fertur, unde major fit merito pulſus.* Gal. de cauſ. pulſ. lib. 4. cap. 3. verſion. Latin.

Quarta. Aërem purum et temperatum vehementer ama, quia ad corporis et animi vigorem multum confert. Hoff. —*Mortalibus aër, tum vitæ, tum morborum, cauſa eſt;—morbi raro aliunde naſcuntur quam ab aëre, cum is morbidis inquinamentis corpus ſubierit.* Hipp. de flatib. pag. 296. edit. Fœſii.

Quinta. Quam maxime ſelige alimenta corpori noſtro congrua, et quæ facilius ſolvuntur et corpus tranſeunt. Hoff. ——*Cibi ad ſanitatem optimi ſunt, qui parce ingeſti, fami et ſiti ſufficiunt, et moderate per alvum ſecedunt.* Hippoc. de affect. pag. 527.

Sexta. Menſuram ſemper quære inter alimenta et motum corporis. Hoff.——*Si inventa fuerit ciborum menſura et laborum ad unamquamque naturam, ita ut exceſſus neque ſupra neque*

viz. "Avoid phyſic and phyſicians, if you "have any value for your health." Theſe rules of health are undoubtedly good, and ſo much the more to be depended on in practice, as they are unanimouſly recommended both by the *ancients* and *moderns*; but ſtill the knowledge which we learn from our predeceſſors, ought rather to excite gratitude than arrogance.

Some writers of reputation upon the art of preſerving health I could not find, tho' carefully ſearched for by my friends at London and in Holland, and by myſelf in the immenſe libraries of Oxford. Others again, who advance nothing new in matter or method, I have omitted; but ſhall gladly make mention of either when I can meet with the former, or be convinced of any miſtake with regard to the latter. Syſtematical writers in phyſic I ſeldom take notice of, as moſt of

infra modum fiat, inventa erit exacta hominibus ſanitas. Hip. de diæt. lib. 1. pag. 341.

Septima. Fuge medicos et medicamenta, ſi vis eſſe ſalvus. Hoff.

them

them touch but very ſlightly on my ſubject.

Upon the whole, I have endeavoured to diſtinguiſh and ſelect ſuch precepts as may be of ſome uſe at this time, from a large mixture of exploded cuſtoms and needleſs digreſſions, which are frequently met with in ſeveral ancients and moderns that wrote concerning health; and I have laboured to reduce thoſe precepts to a proper method, with all the perſpicuity and preciſion in my power, preſerving the ſpirit and ſenſe of my authors, rather than a cloſe tranſlation of their words. But, after all, repetitions are unavoidable, where various authors treat on the ſame ſubject, and ſucceeding writers have interwoven the ſentiments of thoſe who went before them with their own.

When, in order of time, I mention an author that recommended any particular regimen of health, I join with him the principal writers who adopted his notions, tho' they were born many ages after him. Thus, for inſtance, I join Dr Cheyne with the philoſopher

philoſopher Porphyry; and Lord Verulam with the Greek phyſician Actuarius. Laſtly, I have, in the ſecond part, for the eaſe of the reader, collected into a narrow compaſs thoſe general and particular rules which are moſt conducive to health in the ſeveral periods and circumſtances of life.

If it ſhould be aſked, why I addreſs a medical treatiſe to your Lordſhip? I anſwer, in the firſt place, that the preſervation of health is an important branch of that *preventive wiſdom* which you ſo earneſtly and conſtantly recommend. In the next place, it is a *philoſophical* as well as a *medical* ſubject. Plutarch has compoſed an elegant dialogue upon it; Porphyry, Cornaro, Lord Verulam, Addiſon *, and other philoſophical gentlemen, have recommended ſome parts of it. The clergy alſo have contributed their aſſiſtance; a pope † and a cardinal ‡

* See Spect. N° 115. and 195.

† John XXI. formerly Petrus Hiſpanus.

‡ Vitalis de Furno.

wrote

wrote concerning health; and we have few better treatiſes on temperance than Leſſius's Hygiaſticon. Beſides, all men are concerned to take care of their health. It is uſeful towards the diſcharge of our duty, and without it every other enjoyment is inſipid. When the body is in pain, ſays Democritus, the mind has no reliſh for the exerciſe of virtue; but *health enlarges the ſoul* *. In ſhort, ſince health is apt to be impaired by the labours of the mind, it is principally for ſuch as your Lordſhip I write; for thoſe who think themſelves in duty obliged to preſerve their health for the good of the public, and recommend to others a due regard to that invaluable bleſſing.

* Αυξεται δε νοας παρευσης υγιειας.

Epiſt. ad Hippoc.

THE

THE HISTORY OF HEALTH, &c.

PART I.

CHAP. I.

Of man's food before the fall.—Moſes the beſt hiſtorian of remote antiquity.—Probable uſe of the tree of life.—Early advances toward the improvement of man's diet by huſbandry.—Why loſt in ſome countries.—Longevity of the firſt generations infers the goodneſs of their aliment.

GOD was pleaſed to create man in ſuch a manner that he could not ſubſiſt without a daily ſupply of aliment; and all the ancient writers of every denomination, who touch on this ſubject, agree, that fruits, ſeeds, and herbs, juſt as they

grew*, and preſented themſelves to the hand, were the food of the firſt men.

But when we come to inquire into the nature of this ſort of food, we find, that, tho' it is very proper for cattle, whoſe organs are adapted to ſuch aliment, it could not be quite agreeable to man, who was made of a more delicate frame. The moſt delicious fruits are cold, and afford but little nouriſhment. Seeds, without a previous dreſſing, are flatulent, and hard to digeſt; and herbs ſtill more harſh and crude. Nor is this a controverted point, but the ſettled

* "And God ſaid, Behold, I have given you every herb "bearing ſeed, which is upon the face of all the earth, and "every tree, in the which is the fruit of a tree yielding "ſeed: to you it ſhall be for meat." Gen. i. 29.

I am of opinion, ſays Hippocrates, that in the beginning man made uſe of the *ſame food* with the beaſts. Lib. de priſc. medic.

Volgivago vitam tractabant, *more ferarum*. Lucret. lib. 5.

And as to the firſt pair before the fall, one may venture to ſay, that the drudgery of providing utenſils, and dreſſing victuals, was not very ſuitable to a life of paradiſiacal happineſs.

opinion

opinion of phyſicians in all ages and climates, Greeks *, Arabians †, Germans ‡.

We are not from hence to infer, that man, at his firſt production, was treated worſe than the beaſts of the field: ſuch partiality was inconſiſtent with the attributes of the Deity, ever perfect in wiſdom and goodneſs, tho' we cannot always comprehend the reaſon of his diſpenſations. We ſhould rather conclude, as man was endowed with nobler faculties, that he was alſo diſtinguiſhed with higher marks of favour; and that the pleaſures, even of the animal life, were beſtowed in greater profuſion upon him, while he preſerved that innocence of which he muſt neceſſarily have been poſſeſſed, when he came out of the hands of his creator.

Moses is the only hiſtorian || who gives an account of this tranſaction worthy of the Supreme

* Hippocrates, Galen. † Avicenna. ‡ Melchior Sebizius.

|| The Heathen hiſtorians having themſelves no knowledge of the true God, repreſent man (without alledging any cauſe for ſuch uſage) as in a moſt wretched condition, ſprung up

Supreme Being; which, in my humble opinion, is an argument of the truth of his hiſtory, and of the preference it deſerves.

He

by *chance*, by *fate*, or by *nature*, (words which convey no diſtinct idea), deſtitute of all aid or reſource except from his own ſagacity; which, according to them, muſt have been very pitiful, ſince it had not, in many ages, found out the neceſſary uſe of the plough, or the ſheepfold.

Sanchoniatho, in the fragment we have of him, (Euſeb. præp. evang. lib. 1. cap. 10.), ſays, that "the firſt men "conſecrated the plants ſhooting out of the ground, and "judged them gods, and worſhipped thoſe deities upon "whom they themſelves lived."

Diodorus Siculus, from the Egyptian records, (Bibl. hiſtor. p. 11. edit. Weſtlingii), tells a lamentable tale concerning the firſt race of men, "who periſhed in great numbers thro' "want of knowledge in providing themſelves food, cloaths, "or houſes againſt winter."

Pliny alſo, enumerating the calamities of this proud and helpleſs lord of the earth, peeviſhly remarks, that "it is "hard to determine, whether Nature deſerves to be called "a kind parent, or a cruel ſtepmother," lib. 7. hiſt. nat. in procem. The truth of it is, Moſes had a much better opportunity of knowing the tranſactions of the firſt ages than any Pagan hiſtorian could poſſibly have, being himſelf a deſcendent from Abraham, between whom and Adam there intervened but two perſons, Methuſalem and Sem, through whoſe hands an account of facts, in which themſelves were concerned, might be very faithfully tranſmitted. And indeed, where very long-lived families mingle ſo little with ſtrangers, as the anceſtors and poſterity of Abraham did, fa-

mily-

He allots indeed to Adam, before the fall, the ſame ſort of aliment * which other hiſtorians do to the firſt men; but then he informs us, that the tree of life grew in the midſt of the garden †, of which man might freely eat ‡, until he forfeited his right to immortality, was driven out of paradiſe, and the reaſon of his expulſion aſſigned, "leſt "now he put forth his hand, and take alſo "of the tree of life, and live for ever ‖."

Now, a tree intended to ſecure immortality to man, would likewiſe ſecure perpetual health, as the means leading to that end; and

mily-traditions, eſpecially of important facts, are not eaſily loſt. "On ne compte que deux tetes (ſays Berruyer) entre "Adam le premier des hommes et Abraham appellé de Dieu "a fonder un peuple nouveau; ſçavoir Methuſalem, mort "le année même du deluge, et Sem, mort vingt cinque ans "ſeulement avant Abraham. En ſorte qu' Abraham a du "apprendre l' hiſtoire du monde devant et apres le deluge, "de Sem avec qui il a vécu cent cinquante ans; Sem de Me-"thuſalem avec qui il a vécu quatre vingt dix-huit ans; et "Methuſalem d' Adam lui même avec qui il a vécu deux cens "quarante trois ans." Hiſt. du peuple de Dieu, livr. 1.

* Gen. i. 29. † ib. ii. 9. ‡ ib. ii. 16. ‖ ib. iii. 22.

would

would conſequently prevent, or immediately remove, every inconveniency which might ariſe from the inſalubrity of his common diet. Does it not ſeem abſurd to imagine, that neither Adam nor Eve ever taſted this fruit, tho' they had an unlimited permiſſion to partake of ſo great a bleſſing? If prudence or curioſity did not prompt them, would not the natural effects of their ordinary food oblige them to make ſo neceſſary an experiment? Beſides, it is evident from the nature and mechaniſm of the human body, that man was originally created mortal, and that there was no * poſſibility (while he continued the ſame creature) of making him immortal in this world, but by means of the tree of life, or ſome ſuch panacea, contrived by in-

* "Corpus bene ſanum, (ſays Boerhaave), per actiones a "vita ſana inſeparabiles ſenſim ita mutatur, ut tandem mors "ſenilis accidat inevitabilis." Inſtit. med. ſect. 1053.—And ſome of our great divines are of the ſame opinion. See Clarke's ſermons, vol. 8. ſerm. 14. where the Doctor ſays, that "Adam was not (as ſome have, without any ground "from ſcripture, imagined) created *actually immortal*; but, by "the uſe of the *tree of life*, (whatever is implied under that "expreſſion), he was to have been preſerved from dying."

finite

finite wiſdom, and miraculouſly interpoſed, to prevent ſickneſs, old age, and death.

To have an univerſal remedy always at hand, which could not only remove every inconveniency that the natural qualities of their common food, or any exceſs, or other miſtake, might bring upon them; but alſo in a moment renew their ſtrength and youth, which otherwiſe, by the very ſtructure of the animal machine, muſt perpetually tend to decay: to enjoy ſuch a privilege, I ſay, inſured their living for ever; and to be excluded from it, conſigned them over to death, or, in other words, permitted nature to take her courſe: and thoſe who conſider the pernicious effects which the fruit * and leaves of ſome trees have upon animal life, will, from a parity of reaſon, eaſily imagine the renovation of health that might be inſtantly

* A ſimple water diſtilled from the leaves of the lauroceraſus, from the kernel of the black cherry, or from the bitter almond, given to a dog, kills him in a moment. "Quam multa fieri non poſſe, priuſquam ſunt facta, judi-"cantur." Plin. lib. 7. cap. 1.

received

received from a tree or fruit of contrary qualities. Give me leave to add, that as St John, ſpeaking of the tree of life, alludes to its uſe of healing, this alluſion ſeems to ſtrengthen the former opinion, and to ſhew what its original deſtination was. "On either ſide of the river was the tree of life, "which bare twelve manner of fruits, and "yielded her fruit every month; and the "leaves of the tree were for the healing "of the nations *."

SEVERAL learned and worthy men are, indeed, of opinion, that the food appointed for Adam, in his ſtate of innocence, was not only delicious, but in every reſpect perfectly agreeable to the human conſtitution; and ſupport their opinion by what Moſes ſays, "that "out of the ground made the Lord "God to grow every tree that was pleaſant "to the ſight, and good for food †." That God made to grow every tree which was

* Rev. xxii. 2. † Gen. ii. 9.

good

good for food, does not contradict any thing I have advanced; for ſeveral kinds of fruit were then, and always will be *good for food* with a proper preparation. For my part, I am as far from depretiating the paradiſiacal happineſs as any perſon; but cannot ſee why the extraordinary virtues communicated to the tree of life, and the permiſſion to mingle it with every other ſort of food which might have any inconvenient quality, ſhould not as clearly demonſtrate the beneficence of the Deity, and the felicity of man, as an appointment of various ſorts of food in themſelves delicious and wholeſome. And perhaps the perpetual acceſs which man had to this ſupernatural gift, might be a proper means to remind him of his conſtant dependence on the hand by which it was beſtowed. Nor does the curſe denounced againſt the earth ſeem to imply an eſſential change in the nature and quality of its productions, but only that the ground was leſs fertile, and required more culture than before; for ſome culture was neceſſary, even in the *happy*

garden of Eden, into which the man was put *to dreſs it* *. The great difference ſeems to have been, that what was a pleaſing amuſement before the fall, became a painful toil after that fatal period.

THUS far I have ventured to touch upon the nature of man's aliment before the fall, being obliged, according to my plan, to inquire into his manner of ſubſiſtence from the beginning; but ſince Moſes, my only guide in this narrative, has been ſo ſhort upon it, I ſhall purſue it no farther.

AFTER man became ungrateful, and rebelled againſt his Maker, it was but a gentle and neceſſary puniſhment †, to remove him from thoſe pleaſures of which he had made a baſe uſe; and to leave him, amidſt the ſpon-

* Gen. ii. 15.

† Puniſhment ſeems to be the only effectual means of reclaiming perverſe minds, as well as the beſt expedient to deter the innocent from purſuing bad courſes; for it is not to be imagined, that the Deity would puniſh any creature, from indignation or revenge, as men frequently do.

taneous

taneous productions of the earth in a fruitful ſoil, to provide his food by his own induſtry, and dreſs it by his own ſagacity, and growing experience. He might alſo, and no doubt did, receive eſpecial * inſtruction from God concerning things above his own capacity, which were neceſſary to his ſubſiſtence; ſince it is evident, from the hiſtory of Cain and Abel, that all immediate intercourſe between God and man was not ceaſed; but it is probable, that, for the moſt part, he was left to draw theſe helps from reaſon, which the brutes did from inſtinct. Guided accordingly by his reflection and good ſenſe, Adam in a few years reaped the fruit of his induſtry, and lived on the produce of his flocks and fields; for we find his ſons in-

* The greateſt men of antiquity thought, that the interpoſition of the Deity was neceſſary to the invention of arts. I ſhall at preſent only cite Pliny, who ſays, "Quod ſi quis "illa forte ab homine excogitari potuiſſe credit, ingrate "deorum munera intelligit — Quod certe caſu repertum ſit, "quis dubitet? — Hic ergo caſus, hic eſt ille qui plurima "in vita invenit Deus." Lib. 25. cap. 2. 3.

ſtructed both in paſturage and agriculture: "Abel was a keeper of ſheep, but Cain "was a tiller of the ground *."

And here we may obſerve, that mere neceſſity invented the firſt rudiments of the art of preſerving health; ſince Adam was obliged, after he loſt his panacea, to contrive ſome method of dreſſing the fruits of the earth, in ſuch a manner as to make them agree better with him, than they had done quite crude and unprepared.

To this opinion it has been objected, that bread is expreſsly named by God himſelf upon the fall: "In the ſweat of thy face thou "ſhalt eat bread †." But it may be anſwered, That the word *bread*, mentioned there, cannot mean bread, in contradiſtinction to a more crude aliment; becauſe, "Thou ſhalt eat "the herb of the field," goes immediately before it; but muſt be intended to mean food

* Gen. iv. 2. † Gen. iii. 19.

or

or ſuſtenance in general, as we have it in the Lord's prayer, and many other paſſages of ſcripture *.

How ſome nations came totally to loſe the knowledge of huſbandry, and live for many ages, in a ſavage manner, on acorns, and other wild fruits and plants, it is not eaſy to clear up, unleſs we ſuppoſe, (which ſeems to be the truth of the matter), that huſbandry was at all times cultivated in the fertile and champaign provinces of Aſſyria and Egypt; but that the people who firſt tranſported themſelves into Greece, (perhaps to avoid oppreſſion or puniſhment), being deſtitute of every aid and implement of huſbandry, were obliged to live on the ſpontaneous produce of the woods and fields ſo long, that their poſterity might forget to have heard of any ſuch art as huſbandry in the world; and might conſequently themſelves imagine, and perſuade others, who were not acquainted with the Jewiſh hiſto-

* As in Gen. xxviii. 20. xxxix. 6. xliii. 32. Exod. ii. 20. Prov. xii. 19. xxxi. 27. Lam. v. 9.

ry,

ry, that the firſt generations of mankind, every where, had lived after the manner of their own rude and ignorant anceſtors. And as we have almoſt all our ancient hiſtories from the Greeks, it was natural, that their notions ſhould prevail before the writings of Moſes were publiſhed *.

INFLUENCED by this national prejudice, Hippocrates gives it as his opinion, that "in "† the beginning man made uſe of the ſame "food with the beaſts; and that it was the "many diſtempers brought upon him by "ſuch indigeſtible aliment, which taught "him, in length of time, to find out a dif-"ferent diet, better adapted to his conſtitu-"tion:" and he was probably in the right with reſpect to his own country. But with reſpect to mankind in general, that, from their firſt production, they lived miſerably,

* They were not tranſlated into Greek, and conſequently could not be known to the world, before the time of Ptolomy Soter, about 300 years before Chriſt. See Prideaux's connections, part 2. book 1. p. 45.

† De priſc. medic. pag. 9. edit. Fœſii.

and

and in a wretched ignorance of the common conveniencies of life, Hippocrates, who was ſo great a lover of truth, would doubtleſs have entertained a different opinion of them, had he been acquainted with the rational and conſiſtent hiſtory of Moſes.

It is amazing, that the Greek and Latin writers, who admit the longevity of the primeval generations, ſhould, at the ſame time, appoint no better food for them than that of the beaſts, *viz.* the ſpontaneous and crude productions of the earth; which, according to Hippocrates, and, indeed, according to common ſenſe, muſt rather have ſhortened, than lengthened their lives.

That the tradition of this longevity has run through all antiquity, without control, we learn from Joſephus, who had the good fortune to ſee many works entire, of which we have now but a few ſcattered fragments. He affirms, that all the writers of antiquities, as well Greeks as Barbarians, admit the longevity

gevity of the firſt ages; and ſubjoins theſe words. "* Manetho, who wrote the Egyp-
" tian hiſtory, Beroſus, who wrote the Chal-
" dean, Mochus, Heſtiæus, and Jerom the
" Egyptian, who wrote the Phenician an-
" tiquities, give their concurrent teſtimony
" to this truth. Heſiod alſo, Hecatæus,
" Hellanicus, Accuſilaus, Ephorus, and Ni-
" colaus, relate, that, among the firſt race
" of men, ſome lived to a thouſand years,"

LUCRETIUS alſo, (that we may cite one teſtimony, out of many, among the Latin poets), aſſents to the longevity of the firſt men, and ſays, that they were hardy, "be-
" cauſe the hard earth produced them:"

——————— *tellus quod dura creaſſet.*

——————— validis aptum per viſcera nervis;
Nec facile ex æſtu, nec frigore quod caperetur;
Nec novitate cibi nec labi corporis ulla.
Multaque per cælum ſolis volventia luſtra
Volgivago vitam tractabant more ferarum.

The nerves that join'd their limbs were firm and ſtrong,
Their life was healthy, and their age was long;

* Antiq. Jud. lib. 1. cap. 3.

Returning

Returning years ſtill ſaw them in their prime,
They wearied e'en the wings of meas'ring time.
CREECH.

NOTHING can be more obvious, than that the avowed longevity of the primeval race neceſſarily infers the ſalubrity of their food. And, in fact, we find, that bread, milk, and the fruits of the earth, dreſſed in a plain and ſimple manner, together with water to drink, were the aliment of Adam's family: which ſort of aliment, to healthy perſons, accuſtomed to it from their infancy, is perhaps as wholeſome as any we have at this day; and, by the experience of all ages of the world, found proper to prolong life *. And there is no reaſon to doubt, that Adam's poſterity was well acquainted with this diet before their migrations into tranſmarine countries; and it was, perhaps, to the ſalubrity of this

* This is evident from the long lives of the firſt hermits, who ſubſiſted on bread and water, with a few fruits and ſallads, plainly dreſſed. See alſo Gemelli's account of the late Aurenzebe, who, from his uſurpation of the throne, never taſted fleſh, fiſh, nor ſtrong liquors, and lived in good health to near a hundred years.

ſimple diet, as well as to the ſtrength of their ſtamina, and the temperature of the ſeaſons, that, in a great meaſure, they owed their extraordinary longevity. It is alſo inſiſted upon by ſome learned men, that the antediluvians were no ſtrangers to animal food and fermented liquors: which opinion ſhall, in its proper place, be diſcuſſed.

CHAP. II.

Food of the firſt inhabitants of Greece.—The golden age.—Wherein conſiſted the felicity of it.—Arcadians the moſt noted ſhepherds.—Aliment of the Greeks improved by huſbandry.—Benefit of the arts.—Bread and milk, the firſt mild and wholeſome food found out by man, as well in Europe as in Aſia.

WHEN Adam loſt his innocence, he loſt alſo the benefit of the tree of life; but the ſame common food was continued after his tranſgreſſion which he made uſe of before it: "And thou ſhalt eat the "herb

" herb of the field *." Happily, however, by his own ſagacity, under the kind direction of Providence, he and his family ſoon became acquainted with huſbandry, which ſupplied them with the neceſſaries of life, in a plain and comfortable manner.

It was not ſo with the firſt inhabitants of Greece; who having left the fertile countries of Aſia, and being deſtitute of the implements and ſupports of huſbandry, lived, like the beaſts, on the ſpontaneous productions of the woods and fields. This account we have from their own hiſtorians; of whom it will be neceſſary to remark, that they ſpeak of their earlieſt Grecian anceſtors as if they had been the firſt generations of mankind.

Diodorus Siculus † writes, that " the " firſt men ranged over the fields and woods " in ſearch of food, like the beaſts, eating

* Gen. iii. 18. † Bibl. hiſt. lib. 1. ſect. 8.

"every mild herb they could find, and ſuch "fruits as the trees produced of their own "accord."

ÆLIAN * affirms, that "the diet of the "primeval race differed according to the "different products of their reſpective coun-"tries: the Arcadians having lived on a-"corns, the Argives on pears, the Athe-"nians on figs," &c. Plutarch † relates, that "the firſt Argives, led by Inachus, "ſearched the woods for wild pears to ſup-"port them." Among the Roman writers alſo, Pliny ‡ laments the ſavage condition of the firſt ages, "which ſubſiſted on a-"corns."

* Var. hiſt. lib. 3. cap. 39.

† Ἀχράσι διατραφῆναι λέγυσι.

The ſame author, in his life of Artaxerxes Longimanus, tells us, that, much later than the time we ſpeak of, this unwary prince led a great army againſt the Caduſians, a robuſt and warlike people, whoſe inhoſpitable country produced neither corn nor good fruit, ſo that the natives were forced to live on pears and apples, which grew wild and ſpontaneous.

‡ Hiſt. nat. lib. 16. in princip.

AND

AND Galen ſeems to think all theſe accounts true; for he aſſures us *, "that a-
"corns afford as good nouriſhment as ma-
"ny ſorts of grain; that in ancient times
"men lived on acorns only; and that the
"Arcadians continued to eat them, long
"after the reſt of Greece had made uſe of
"bread-corn.

THIS account Galen probably learned from Herodotus †, who relates, that, "up-
"on the death of Lycurgus, the Lacedemo-
"nians, meditating the conqueſt of Ar-
"cadia, were told by the oracle, that there
"were many brave ‡ acorn-eaters (βαλανη-
"φάγοι ἄνδρες) in that country, who would

* Gal. de aliment. facult. lib. 2. cap. 38. And he means the acorns of the beech as well as thoſe of the oak.

† Clio, cap. 66.

‡ It ſtould ſeem that the Arcadians might continue in their primitive ſtate longer than their neighbours, merely becauſe they were ſhepherds; for property of lands did not begin ſo early among them, as among thoſe addicted to agriculture. This appears from what is ſaid in Geneſis xiii. 9. concerning the people of Paleſtine, who allowed Abraham and Lot to feed their cattle on the neighbouring grounds; whereas the Egyptians had their lands in full property, until Joſeph bought them for Pharaoh. Gen. xlvii. 20.

"repel

"repel them, in caſe they attempted to "carry their arms thither, as it afterwards "happened."

THE poets are of the ſame opinion with the hiſtorians, concerning the food of the firſt inhabitants of the earth. Heſiod ſings*,

——καρπὸν δ' ἔφερε ζείδωρος ἄρουρα
Αὐτομάτη πολλὸν.

The fields, as yet untill'd, their fruits afford,
And fill a ſumptuous and unenvy'd board.
COOKE.

And Ovid, (for it would be tedious to cite all the poets), to the ſame purpoſe, ſays, in the firſt book of his Metamorphoſes:

Contentique cibis nullo cogente creatis,
Arbuteos fœtus, montanaque fraga legebant,
Cornaque et in duris hærentia mora rubetis,
Et quæ deciderant patula Jovis arbore glandes.

Content with food which nature freely bred,
On wildings, and on ſtrawberries they fed;
Cornels and bramble-berries gave the reſt,
And falling acorns furniſh'd out a feaſt.
DRYDEN.

* Oper. et dier. lib. 1. lin. 117.

THOSE

THOSE ages, nevertheleſs, are, by ſome philoſophers and poets, called the *golden ages* of the world. But this notion muſt have ariſen, either from ſome obſcure tradition they had concerning paradiſe, or from the ſuppoſed integrity of mens lives, while they ſubſiſted in common on what the woods and fields ſupplied, and while there was yet no property or private intereſt, to raiſe diſputes and animoſities, and tempt them to violence or fraud; for ſuch a *ſplendid appellation* could not, with any propriety, be given with reſpect to the comforts and conveniencies of life, which have been enjoyed in a much higher degree by ſucceeding ages, inſtructed in the knowledge of arts and ſciences.

AFTER this celebrated æra, in which, whatever peace the mind might enjoy, the body was but indifferently provided for, and man could juſt preſerve his exiſtence from day to day, the firſt approach towards a more mild and wholeſome diet among the Greeks,

Greeks, and towards a fund of plenty for all ſeaſons of the year, was made by tilling the ground and ſowing corn.

HESIOD * aſcribes this invention to Ceres, by his admoniſhing the huſbandman to pray to Jupiter and to *her*, before he enters upon his labour, in the ſeaſon of tillage:

Εὐχεσθαι δὲ Διὶ χθονίῳ Δημήτερι θ' ἁγνῇ.
Pray to terreſtrial Jove, and *Ceres* chaſte.

The Roman poets do her the ſame honour more expreſsly:

Prima Ceres unco glebam dimovit aratro,
Prima dedit fruges, alimentaque mitia terris.
OVID.

PLINY attributes not only the invention of the plough, but of grinding corn alſo, and making bread, to Ceres; and adds, that "divine honours were paid her in Attica, Italy, and Sicily, on this account †."

* Oper. et dier. lib. 2. lin. 83.

† Ceres frumenta invenit, cum ante glande veſcerentur; eadem molere et conficere in Attica, Italia, et Sicilia; ob id dea judicata. Hiſt. nat. lib. 7. cap. 25.

And

And indeed, if ſhe had any ſhare in ſuch a noble and uſeful invention, ſhe deſerved all the reaſonable encomiums which they could beſtow.

When we conſider that the moſt polite nations on earth have formerly lived as the moſt ſavage and barbarous do at this time, we have reaſon to extol the diſcernment and induſtry of our anceſtors, in cultivating the arts and ſciences. It would be endleſs to enumerate the advantages we derive from them. How many conveniencies and pleaſures of life have their ſagacity and addreſs put us in poſſeſſion of! How much labour, inquietude, and miſery have they delivered us from! And perhaps the munificent author of nature has himſelf, in a great meaſure, directed their reſearches both for uſe and ornament. Does not Moſes ſeem to favour this opinion, when, deſcribing the work of the tabernacle, he tells us, that God ſaid, "And in the hearts of all that are

" wiſe-hearted I have put wiſdom *?" And ſo grateful were the ancient inhabitants of Italy to their benefactors, that they conferred immortal honours † even on Stercutius the ſon of Faunus, for his invention of improving land, by ſpreading dung over it.

And have not we reaſon to admire the genius and generoſity of Hippocrates, who has ſo greatly improved, and communicated to mankind, an uſeful ſcience, which ſeemed, in his days, to be wholly confined to himſelf and his family? And ſhould we not be thankful to Providence, when we ſee the art of healing brought ſo near to perfection in our time, and daily receive ſo great benefit from it?

As to the other great branch of huſbandry, or the management and uſe of

* Exod. xxxvi. 1. 2.

† Italia ſuo regi Stercutio, Fauni filio, ob ſimi inventum, immortalitatem tribuit. Plin. lib. 17. cap. 9. See Rollin's introduction to his hiſtory of arts and ſciences.

flocks

flocks and herds, it is probable that this was recovered in Greece, about the ſame time with agriculture, and that the Arcadian ſhepherds might teach their ſkill in paſturage to the other provinces, and from them, in return, learn agriculture.

FROM what has been ſaid, it appears probable, that as bread, milk, and various ſimple preparations of mild fruits and herbs, were the firſt kindly and healthful food found out by Adam and his family, and uſed by his poſterity in Aſia, until they became acquainted with animal food; ſo likewiſe the ſame ſeems to have been the firſt wholeſome aliment, revived by the Greeks, after it had been loſt by their anceſtors.

CHAP. III.

Firſt permiſſion to eat fleſh.—This opinion controverted.—Invention of wine and beer.—The various ſorts of aliment uſed from the creation down to Moſes.

THE next ſtep to improve man's aliment, was the permiſſion given him to eat fleſh, upon account, perhaps, of the ſcarcity and bad condition of the fruits of the earth, after it had undergone ſo great a change, by being ſo long and ſo deeply covered with the waters of the deluge. "Every moving thing that liveth ſhall be "meat for you; even as the green herb "have I given you all things*." This opinion, however, has been ſtrenuouſly controverted. Some learned men aſſert, that Adam was permitted to eat the fleſh of animals, or, at leaſt, that his poſterity did eat it, with or without permiſſion, long before the flood. Others, on the contrary, maintain,

* Gen. ix. 3.

that

that Noah was the firſt who had a permiſſion to eat, or did eat any animal food.

THE former, in ſupport of their opinion, aſſert, That the *dominion* * given to Adam over the brute creation, implies a permiſſion to kill animals for food; and that the *ſkins* † of which GOD made coats for the firſt pair, ſhew that a proper uſe was made of ſuch a permiſſion: That no good reaſon can be aſſigned, why the Almighty ſhould give a more unlimited authority over the brutes after the deluge, than before it; and ſince animal food affords a more ſtrengthening nouriſhment than the vegetable kind, we ought to conclude, that it was allowed from the beginning: That the clean beaſts being taken in by ſevens, and the unclean only by two, the male and his female, it may be preſumed, that the ſurplus of the clean was intended for proviſion to Noah's family, during their abode in the ark: That the ap-

* Gen. i. 28. † Gen. iii. 21.

petites

petites of the antediluvians muſt have been pampered with fleſh meat, and their paſſions inflamed with ſtrong liquors, to incite them to commit ſuch great wickedneſs as provoked the Creator to deſtroy the whole ſpecies, except one family; ſince bread, milk, and water, could never ſtimulate them to that exceſs of violence: And this argument is farther confirmed, by obſerving, that carnivorous animals, as lions and tygers, are more fierce than thoſe which live on herbage. And laſtly, that as the ſacrificing of animals (which was a moſt early inſtitution) might have given occaſion firſt to the taſting, and afterwards to the eating of dreſſed fleſh, which (to a hungry ſtomach eſpecially) ſends forth no unſavoury odour, we can eaſily account for the commencement of this food. And as moſt of the antediluvians were under no reſtraint of conſcience, to prevent their uſing that kind of food, ſuppoſing it had not been expreſsly permitted, there is little reaſon to doubt, that fleſh became a part of common aliment long before the deluge.

THOSE

THOSE on the oppoſite ſide deny, that the *dominion* given to Adam over the brutes implies a power to kill them; it is cruel, ſay they, to infer ſuch a power from an ambiguous expreſſion. Iſaac gave Jacob *dominion* * over his brethren. The Philiſtines had *dominion* † over Iſrael, which did not imply a right to deſtroy them. Man's *dominion* over the brutes ſeems to have conſiſted in the uſe which he might make of their milk, wool, honey, feathers, *&c.* and of their aſſiſtance and ſervice for carriage, agriculture, and defence. It does not follow, becauſe animal food affords a more ſtrengthening nouriſhment, that therefore it muſt have been allowed from the beginning; for we find, ſay they, that tho' blood ‡ is as nouriſhing as fleſh, yet it is prohibited, not

* Gen. xxvii. 29. † Judg. xiv. 4.

‡ Gallinarum ac columbarum ſanguine nonnulli veſcuntur, maxime altilium, qui ſuum ſanguine haudquaquam eſt inferior, neque voluptate, neque coctionis facultate. Gal. claſſ. 2. de aliment. facult. lib. 3. cap. 23. Homerus quoque caprarum ſanguinem in cibo jucundum eſſe non ignoravit. Ibid. cap. 18.

only

only to Noah * and the Jews †, but alſo to the ſtranger ‡, under pain of death; and ſince blood is prohibited in every place where fleſh is permitted, it follows, that the prohibition and permiſſion muſt have been promulged at the ſame time, *i. e.* after the flood.

As to the argument, That the ſons of violence, before the deluge, muſt have been ſtimulated by high food and ſtrong drink, to perpetrate ſo much wickedneſs; the oppoſite ſide maintains, That mens morals are corrupted rather through want of diſcipline, than by the nature of their food; and that men of healthy and robuſt conſtitutions, (as the antediluvians moſt certainly were), under no reſtraint from laws human or divine, are the moſt violent and miſchievous ſavages of nature, let their aliment be what it will: That, in fact, the nations of the earth moſt addicted to lewdneſs, rapine, and murder, at

* Gen. ix. 4. † Lev. xvii. 10. &c.
‡ Deut. xii. 23. 24.

this

this day, are frugal in their diet, and forbid wine by their religion, particularly the pirates of Barbary, and the wild Arabs: And even in Britain and Ireland, that thoſe who live on bread, milk, cheeſe, cabbage, and potatoes, are, perhaps, no leſs diſpoſed to rapine and violence, than ſuch of the community as have good drink and fleſh meat in abundance. Nor is a wild bull that eats graſs, leſs furious than a lion that feeds on fleſh. And we daily ſee ſome birds, that live on grain, fight and tear each other with amazing animoſity.

THEY urge farther, that as we have no genuine account of the primeval ſtate of man from any hiſtorian but Moſes; and ſince he informs us, that vegetable food was expreſſly appointed for man before the flood * in two different periods, and animal food immediately after it †, we have no authority to aſſert the contrary, unleſs we can ſhew,

* Gen. i. 29. and iii. 18. † Ib. ix. 3.

that we know the tranſactions of thoſe times better than the Jewiſh hiſtorian: And why ſhould a direct explicit permiſſion to eat animal food after the deluge, as he had done *the green herb before it*, be given to Noah, if the ſame permiſſion had been given to Adam?

BESIDES, the moſt eminent hiſtorians *, phyſicians †, and philoſophers ‡ of antiquity agree, that the firſt generations of men did not eat fleſh.

LASTLY, in reference to the firſt who ventured to deſtroy animals for food, they affirm, that the attempt to tear and devour creatures ſo like himſelf, was the moſt ſa-

* Moſes, Sanchoniatho, Diodorus Siculus.

† Hippocrates, Galen.

‡ Pythagoras; Empedocles; Plato, lib. 6. de republica; Porphyr. de abſtin. ab eſu animalium; Plutarch. de eſu carn. See alſo Diog. Laert. de vit. philoſoph.

Enimvero, (ſays Pliny), rerum omnium parens nullum animal ad hoc tantum ut paſceretur, aut alia ſatiaret, naſci voluit. Nat. hiſt. lib. 21. cap. 13.

vage

vage and unnatural thought which ever entered into the heart of man; and that nothing leſs than an expreſs permiſſion from the Deity could either induce or juſtify the firſt who made the cruel experiment, to take ſuch a bold ſtep, let his appetite be never ſo keen, or the odour of burnt-offerings never ſo fragrant.

ANOTHER great improvement of man's aliment, was the invention of wine; which well deſerves the encomium beſtowed upon it by Plutarch *, of being "the moſt noble "of all liquors, the moſt palatable medi-"cine, and of all delicacies the moſt grate-"ful to the ſtomach †." "Noah began to "be

* Præcept. de ſanit. tuend.

† Aretæus alſo, a phyſician of the firſt rank among the ancients, commends wine no leſs for the cures which it performs. I ſhall cite his own words from the elegant Latin verſion of the learned Dr Wiggan. De morb. acut. curat. lib. 1. cap. 1. "Sed quum metus ſit, ne in vaporem humi-"ditatemque homo diſſolvatur, unicum ſubſidium vinum eſt: "celeriter enim ſubſtantiam alendo inſtaurat: et quoquover-"ſus ad extremitates uſque permeat, robori apponit robur, "et ſpiritum torpentem expergefacit, frigiditatem calore "temperat,

" be a huſbandman; and he planted a vine-
" yard, and he drank of the wine, and was
" drunken*." This good man being a ſtranger to the qualities of his new liquor, reaſon and humanity required that he ſhould try what effect it might have upon himſelf, before he would recommend it to his family; but had the misfortune to be, for a while, deprived of his reaſon by the trial, like a thouſand other curious inquirers into nature, who have generouſly expoſed themſelves to danger for the benefit of mankind. Noah had doubtleſs taſted grapes before, and found them harmleſs; and it was impoſſible he ſhould know, (until experience taught him), that *fermentation* gives an *inebriating quality* to liquors, or would produce a ſpirit in the juice of the grape which it did not contain before.

" temperat, laxantem madorem aſtringit, extrorſum erum-
" pentia atque diffluentia coërcet, olfactu ſuavi delectat: vi-
" res demum fulcire ad vitam prorogandam poteſt."

* Gen. ix. 20. 21.

NOT long after wine, it is probable that beer was diſcovered; for Herodotus informs us, that in the corn-provinces of Egypt, where no vines grew, the people drank a ſort of wine made of barley *, ὄινῳ ἐκ κριθέων πεποιημένῳ. And this ſeems † to be the ſtrong drink mentioned, together with wine, in many places of the Old Teſtament ‡.

IN ſhort, the ſeveral improvements made with reſpect to the different ſorts of aliment uſed by men in different periods of time from the creation to Moſes, ſeem to have proceeded nearly in the following order, *viz.* fruits, ſeeds, herbs, bread, milk, fiſh, fleſh, wine, ale; to which may be added butter, honey, oil olive, eggs, and cheeſe. But as aliment came, in proceſs of time, to be improved to ſuch a high degree, that a thorough diſcuſ-

* Euterpe, ſect. 77.

† Diſtilled liquors were not heard of in any part of the world known to Europeans, for many centuries after the time of Moſes, and the other writers of the Old Teſtament.

‡ Lev. x. 9. Numb. vi. 3. 1 Sam. i. 15. Mic. ii. 11.

ſion

ſion of it would take up too much room here, I ſhall only point out the principal authors who have treated on this article.

CHAP. IV.

Of the writers on aliment.

THE neceſſity of food, which ſupports life, contributes to reſtore health, and adminiſters pleaſure, has induced ſome eminent men, in moſt ages and nations, to conſider it, and to form the beſt rules they could to direct people in the choice of it, under the various circumſtances of life. It is amazing to think what myriads of vegetables and animals the munificence of the Creator has provided on the earth, and in the waters, for the uſe of man. From this immenſe ſtore, Moſes * was the firſt who, with great judgment, ſelected ſome of the animal kind

* Moſes, according to the Reverend and learned Mr Shuckford, was born A. M. 2433. Connect. vol. 2. lib. 9. p. 376. octavo.

for

for food to the Jews, and, in his hiſtory, mentions ſeveral vegetable productions uſed by that people; which vegetables and animals make the principal part of the ſuſtenance of mankind, in all nations of the world, to this time, *viz.* bread, wine, milk, honey; quadrupeds that divide the hoof, and chew the cud; all the feathered kind, a few only excepted; and fiſhes that have fins and ſcales.

NEXT to him, though at the diſtance of more than eleven hundred years, came Hippocrates *, who marks the qualities of ſeveral ſorts of aliment with regard to health, and whoſe rules of diet (eſpecially in acute diſtempers) are among the beſt we have at this day.

CORNELIUS CELSUS, who flouriſhed in the time of Tiberius, has conciſely indeed,

* The moſt learned Dean Prideaux ſays, that Hippocrates flouriſhed in the time of the Peloponneſian war, which Mr Shuckford reckons to have happened about the year of the world 3570. Connect. vol. 2. lib. 9. p. 414.

but

but with his uſual elegance and propriety, treated on this ſubject, from the beginning of the eighteenth chapter to the cloſe of his ſecond book.

XENOCRATES, who lived alſo under the reign of Tiberius, wrote a treatiſe on fiſhes, which was in ſome eſtimation with Galen, and is publiſhed in the collection of Photius; but I cannot ſay that it will now be of great uſe to mankind.

DIOSCORIDES, who ſeems, by what himſelf ſays * in the beginning of his work, to have been phyſician to one of the Roman armies in Nero's time, has diſperſed his obſervations upon different aliments throughout his materia medica, but has chiefly thrown them into his ſecond and fifth books.

CÆLIUS APICIUS †, about the time of Trajan, wrote ten books on the art of cook-

* Noſti noſtram militarem vitam. Verſio commun.

† This was not the famous epicure Apicius, of whom we are told ſo many extraordinary ſtories by Pliny and Athenæus.

ery.

ery. Whether his manner of dreſſing food might be to the taſte of his cotemporaries, I ſhall not determine; but will venture to ſay, that he has ſtudied health very little in his diſhes. Among his other refinements, he has quite ſpoiled the ſimple and wholeſome ptiſan of Hippocrates, by his addition * of dill, hogſlard, ſavory, coriander-ſeeds, vetches, peeſe, beets, fennel, and mallows.

GALEN follows next. He flouriſhed in the reign of Marcus Aurelius Antoninus; and in his books concerning the nature of aliments, and in ſome other tracts †, gives ſuch a rational account of the various kinds of food uſed in his time, and of their effects on different conſtitutions, that his writings are the baſis and model of almoſt all that has been advanced on the ſame ſubject ſince his time.

* De re culinari, lib. 4. cap. 4.

† De ſuccor. bonit. et vitio. De attenuante victus ratione.

AFTER him Oribaſius, archiater to Julian the Apoſtate, beſtows upon aliment the whole fourth book of his ſynopſis, three books of his collections, and ſeveral chapters of his directions to Eunapius.

AETIUS, who lived in the latter end of the fifth century, treats this ſubject in the ſecond book of his firſt Quaternion.

PAULUS ÆGINETA wrote in the ſeventh century, and gives an epitome of the nature of aliments in his firſt book, from the ſeventy-third to the ninetieth chapter inclusively.

SIMEON SETHI, the copier of Michael Pſellus, lived in the eleventh century, under the reign of Michael Ducas, and dedicates to that emperor a treatiſe on the nature of aliments.

AND the laſt Greek, Actuarius, who practiſed phyſic with good reputation at Conſtantinople

ſtantinople in the thirteenth century, touches the article of aliments ſlightly.

AMONG the Arabians, Iſaac Iſraelita, the adopted ſon of Solomon King of Arabia, (which princely author has been commented upon by Petrus Hiſpanus, afterwards Pope John XXI.), Serapion, Rhaſes, Avicenna, and Averrhoes, have handled this ſubject.

SEVERAL Italians, French, and Germans, have written upon aliment: Arnoldus de Villa Nova, Mich. Savanarola, Carolus Stephanus, Ludovicus Nonnius, Petrus Caſtellanus, *&c.* It has alſo been treated of in verſe by the Schola Salernitana, Caſtor Durante; and ſome ſorts of fiſh have been elegantly deſcribed by Auſonius in his Moſella.

THE three exotic liquors alſo, tea, coffee, and chocolate, ſo much in common uſe among us; and tobacco, which has no ſmall

influence on health, have been ſeverally treated of by various authors: tobacco by King James I. Simon Pauli, and Joannes Neander Bremenſis; chocolate by Dr Chub of Warwick; and tea by the learned Dr Short of Sheffield, and others.

But as it would be too tedious to give a detail of all that have laboured in this ſearch into the nature of aliments, I ſhall only recommend to the curious ſome of the moſt eminent, whoſe works ſeem to have exhauſted all that is valuable in this branch of knowledge. Theſe are Galen, Joannes Bruyerinus Campegius de re cibaria, Julius Alexandrinus ſalubrium, ſive de ſanitate tuenda, Melchior Sebizius de alimentorum facultatibus; and to the Engliſh reader, (who muſt mind rather the ſenſe than the ſtyle), "Health's improvement; or, Rules "compriſing the nature and manner of pre-"paring all ſorts of food uſed in this nation," by Dr Mouffet, and enlarged by the famous Chriſtopher Bennet, author of the

Theatrum

Theatrum Tabidorum; Or, if he chuſes a ſhort, uſeful, and entertaining diſcuſſion of this ſubject, let him conſult the learned and ingenious Dr Arbuthnot's excellent eſſay concerning the nature and choice of aliments.

HAVING thus mentioned the high degree of ſalubrity and elegance given by time and induſtry to man's aliment, which was the only one of the ſix things neceſſary to animal life known to the firſt and moſt remote ages of the world; let us next examine the gradual improvements made in the remaining five; or, in other words, let us inquire into the firſt rudiments and progreſs of the art of reſtoring, but eſpecially of preſerving health among mankind.

CHAP.

CHAP. V.

Neceſſity invented every branch of phyſic.—Firſt rudiments of it among the Babylonians and other nations.—Egyptian method of preſerving health.—Earlieſt inſtances of the care of old age.—Pythagoras the firſt who recommended temperance and moderation, as conducive to health.—Herodicus inventor of the medicinal gymnaſtics.—Plato's abſurd cenſure of this invention.—Herodicus not the author of the three books on diet, publiſhed among the works of Hippocrates.

HIPPOCRATES is of opinion, that mere neceſſity compelled men to invent both the art of preſerving health, and the art of reſtoring it when loſt. As to the former, he remarks particularly, that "the "diſtempers * ariſing from the coarſe ali-"ment which men at firſt made uſe of, ob-"liged them to ſtudy the moſt proper me-

* De priſc. med. ſect. 1. pag. 9. line 37. edit. Fœſii.

"thods

" thods of preparing bread from grain, and of " dreſſing other vegetables in ſuch a manner " as ſhould render them more wholeſome:" And as to the latter, " One cauſe (ſays he) " which made it neceſſary to ſtudy the art " of reſtoring loſt health, was the great dif- " ference to be obſerved between the diet " of the healthy, and that of the ſick." People * had frequently ſeen, that what agreed with the ſtrong, did hurt to the infirm; and therefore it was indiſpenſably requiſite, that different rules of diet, as well for the reſtoration of the ſick and infirm, as for the preſervation of the ſtrong and healthy, ſhould be eſtabliſhed.

But this required time and experience; and, in fact, a long time it took to eſtabliſh ſuch rules; for tho' the beginning † of the

* De priſc. med. pag. 9. lin. 13. et ſeq.

† Medicina quondam paucarum fuit ſcientia herbarum, quibus ſiſteretur fluens ſanguis, vulnera coirent: paulatim deinde in hanc pervenit tam multiplicem varietatem.—Non minus quam cæteræ artes, quarum in proceſſu ſubtilitas crevit. Senec. epiſt. 95.

medical

medical art muſt have been very ancient, the progreſs was exceeding ſlow, and many ages elapſed, before it could properly be called a ſcience. We learn from Herodotus *, that the Babylonians obliged themſelves, by an expreſs law, to carry their ſick into places or ſtreets of public reſort, and to inquire of all who paſſed by, whether they ever had, or ſaw any ſuch diſtemper as the ſick perſon preſent laboured under, and what was done to remove it? It is obvious, that the progreſs of phyſic muſt be very ſlow under this regulation, tho' it really was *νομὸς σοφώτατος*, "a moſt prudent inſtitution," as the author calls it, and the beſt which could be contrived at that time. It was undoubtedly a proper method to gain experience, and, in proceſs of time, to bring to maturity a ſcience which was then in embryo. Hippocrates ſeems to have been of this opinion; for, in his ſhort book of precepts, he admoniſhes phyſicians not to think it below them to

* Clio, cap. 197.

learn

learn from the vulgar, the hiſtory of any cure which could be of uſe to them; and adds, "I am perſuaded, that the whole art "was firſt acquired in this manner *." Strabo † alſo ſays, that the ſame cuſtom of carrying their diſtempered people into the ſtreets for advice, prevailed among the Egyptians and Portugueſe.

THIS law of the Babylonians and Egyptians produced another cuſtom, which likewiſe became a large ſource of medicinal knowledge. When a remarkable cure was performed on any perſon of diſtinction, this perſon (perhaps from gratitude or benevolence) was ſometimes at the expence of erecting a pillar, or fixing a table in one of the temples of Æſculapius, on which the means of his cure was written in legible characters, for the benefit of the public. And Strabo ‡

* Οὕτω γὰρ δοκέω πᾶσαν τὴν τέχνην ἀναδείχθῆναι.

† Geograph. lib. 14. p. 972. edit. Wolters.

‡ Narrant Hippocratem e dedicatis ibi curationibus exercuiſſe ea quæ ad victus rationem ſpectant. Ejuſd. verſ. pag. ead.

ſays, it was pretended that Hippocrates drew a great deal of his knowledge from thoſe conſecrated tables, which were put up at Cos in the famous temple of Æſculapius. The ſame ſort of tables were hung up in the temple of Iſis, to which Tibullus * ſeems to allude, where he ſays,

> Nunc Dea, nunc ſuccurre mihi, nam poſſe mederi
> Picta docet templis multa tabella tuis.

And Mercurialis † informs us, that there is one of thoſe tables in marble, taken out of the temple of Æſculapius in the iſle of Tiber, ſtill to be ſeen at Rome in the Maffæan palace.

As to that branch of phyſic which regards the conſervation of health, there was no conſiderable progreſs made in it, which has come to our knowledge, any more than in curing diſtempers, until very near the time of Hippocrates. It is true, Diodorus Sicu-

* Lib. eleg. 3.

† De arte gymnaſt. lib. 1. cap. 1.

lus * ſeems, at firſt ſight, to give us a favourable idea of the ancient Egyptian phyſic in general, when he informs us, that the phyſicians of Egypt were maintained at the public charge, and obliged by the laws to conform their practice to rules invented and ſettled by men of great judgment and experience in former times, which were recorded in certain venerable books, for the benefit of poſterity; and from thoſe rules the modern phyſicians durſt not depart, but at the peril of their lives, in caſe any patient ſhould happen to die under the new regimen; whereas their perſons and reputation were quite ſecure by adhering to the old. But when we come to examine the ſpecimens, with regard to the conſervation of health, which our hiſtorian has preſerved, we comfort ourſelves under the loſs of thoſe ſacred regiſters. "To pre-
"vent diſtempers, (ſays he), they preſcribed
"glyſters, purging potions, vomiting or faſt-
"ing every ſecond, third, or fourth day:"

* Bibl. hiſt. lib. 1. p. 92. ed. Weſtling.

and he ſubjoins their reaſon for this ſmart diſcipline, becauſe, according to thoſe ancient phyſicians, "the greateſt part of the "aliment we take in is ſuperfluous*; which "ſuperfluity is the cauſe of our diſtempers."

HERODOTUS mentions the ſame ſort of diſcipline among the Egyptians, tho' not practiſed quite ſo frequently. "The Egyp-"tians (ſays he) vomit and purge themſelves "thrice every month, with a view to pre-"ſerve their health, which, in their opinion, "is chiefly injured by their aliment †."

To form any clear or connected judgment from thoſe ſhort and ſcattered hints which may be gleaned among authors of remote antiquity, concerning the preſervation of health, it will be neceſſary to diſtinguiſh four periods of human life, to each of which a peculiar care is due with regard to health, namely, childhood, youth, manhood, and

* Bibl. hiſt. lib. 1. p. 92. † Euterpe, ſect. 77.

old

old age. It is true, that parents, in ancient times, took the ſame care of their infants as they did of themſelves; but their care extended no farther than to provide for their ſubſiſtence from day to day, either by the breaſts, or ſuch coarſe aliment as they could afford; which cannot properly belong to the art of preſerving health. Of theſe four periods, the Gerocomicé, or care of old age, is the only one (ſo far as I know) taken notice of before Pythagoras.

THE earlieſt * inſtance we meet with of the Gerocomicé, is the care which King David's ſervants took of him when he was old † and ſtricken in years, by getting a healthy young virgin to lie in his boſom; which was a very proper means to warm and cheriſh

* We have indeed, long before David's time, in the 27th chapter of Geneſis, an account of ſavoury meat, bread, and wine, prepared for Iſaac when he was very old: but that ſeems to have been rather an occaſional repaſt to raiſe his ſpirits, and ſupport his ſtrength for a ſhort while, than any thing done with regard to the preſervation or reſtoration of health.

† 1 Kings i. 1.

him;

him; and which (when kept within the bounds of innocence and decency) is juſtified by the opinions of Galen *, Paulus Ægineta †, Lord Verulam ‡, and Boerhaave ||.

Homer, whom Pliny † juſtly calls "the "ſource of ſublime ideas," and who, in ſeveral places of his poems, does great honour to phyſicians, comes next, and ſeems to have been acquainted with the γέροκομικη, by the proper care of old age, which Ulyſſes recom-

* "Nothing contributes ſo much to a good digeſtion as a "ſound, healthy, human body touching the ſtomach." Meth. med. lib. 7. cap. 7. et De ſimpl. med. facult. lib. 5. cap. 6.

† "It is very difficult to relieve a perſon who is cold and "dry at the ſame time; and a plump healthy boy to lie in "his boſom, is one of the beſt remedies he can uſe." Lib. 1. cap. 72.

‡ Verulam recommends fomentations of living animals, from hiſtory. Hiſt. vit. et mort. 8vo. p. 300.

|| Boerhaave frequently told his pupils, that an old German prince, in a very infirm ſtate of health, being adviſed to lie between two young virtuous virgins, grew ſo healthy and ſtrong, that his phyſicians found it neceſſary to remove his companions.

† Ingeniorum fons Homerus. Hiſt. nat. lib. 17. cap. 5. And again, Homerus quidem doctrinarum et antiquitatis parens, lib. 25. cap. 2.

mends

mends to his father Laertes, in the laſt book of the Odyſſey, line 258.

——— ἐπεὶ λούσαιτο φάγοι τε,
Εὐδέμεναι μαλακῶς· ἣ γὰρ δίκη ἐστὶ γερόντων.

Warm baths, good food, ſoft ſleep, and generous wine,
Theſe are the rights of age, and ſhould be thine.
POPE.

On this paſſage Galen remarks, that "the "poet's rule was excellent; which directed "an old man, after bathing and refreſhing "himſelf with food, to take ſome reſt; for "old age being naturally cold and dry, "thoſe things which moiſten and warm, as "bathing, eating, and ſleeping, are the "moſt proper for it."

BUT with reſpect to the preſervation of health, in all periods of life indiſcriminately, tho' Moſes * ſtigmatiſes gluttony and drunkenneſs as immoralities which deſerve the ſevereſt puniſhment; and Solomon † ſays, that intemperance biteth like a ſerpent; and

* Deut. xxi. 20. † Prov. xxiii. 32.

Homer

Homer * declares againſt drinking wine to exceſs; yet Pythagoras †, the Samian, ſeems to have been the firſt who recommended univerſal moderation and temperance as conducive to health. He calls drunkenneſs an enemy to the whole man; and maintains, that no man, who values his health, ought to treſpaſs on the bounds of moderation, either in labour, diet, or concubinage. To this account, which Laërtius gives, Jamblichus ‡ adds, that the ſcholars of Pythagoras uſed unction and bathing, and were trained up to ſuch exerciſes as ſeemed moſt proper to increaſe their bodily ſtrength; but I greatly ſuſpect, that, in this place, he confounds Pythagoras the philoſopher with Pythagoras

* Οἶνός σε τρώει μελιηδὴς, ὅστε καὶ ἄλλυς
Βλάπτει, ὅς ἄν μιν χανδὸν ἕλῃ, μηδ' ἀίσιμα πίνῃ. Od. lib. 21. l. 293.

To copious wine this inſolence we owe,
And much thy betters wine does overthrow.
POPE.

† Diog. Laërt. in vit. Pythag. edit. Menag. ſegm. 9. In this paſſage, the ſenſe will oblige every phyſician (if I miſtake not) to adopt the correction of Mer. Caſaubon, and to retain πόνων, contrary to the alteration made by Iſ. Caſaub. and to inſert the addition made by Hen. Stephens.

‡ De vita Pythag. cap. 21.

the

the exercitator mentioned by Pliny *, who trained up his champions for the combat, without the leaſt regard to their health, and firſt taught them to eat fleſh.

After Pythagoras, Iccus †, a phyſician of Tarentum, thought it neceſſary to recommend temperance, together with exerciſe, for the preſervation of health; and his own ſobriety was ſo remarkable, that *the repaſt of Iccus* became a proverbial phraſe for a plain and temperate meal.

Herodicus, nevertheleſs, one of the preceptors of Hippocrates, has been generally celebrated as the inventor of this art of preſerving health, and of teaching the infirm to regulate their exerciſe and diet in ſuch a manner as to prolong their lives for many years; and is cenſured by Plato ‡ for thus

* Hiſt. nat. lib. 23. cap. 7.

† Steph. Byzant. de urbib. in voce Taras.

‡ De republ. lib. 3.

keeping people of crazy conſtitutions alive to old age; whereas, in his opinion, if a tender perſon did not ſoon recover ſtrength, he had better die out of the way. "He was maſter "of an academy, (continues Plato), where "youth were taught their exerciſes; and be- "ing himſelf valetudinary, he contrived to "blend exerciſe with ſuch other medicinal "rules, as preſerved his own infirm conſti- "tution from ſinking under his complaints: "thus he dragged on a dying life to old "age, and did the ſame injury to ſeveral o- "ther valetudinarians." Plato was of opinion, that an infirm conſtitution is an obſtacle to the practice of virtue, becauſe it makes people imagine themſelves to be always ill, and mind nothing but their own wretched carcaſes: for which reaſon, continues he, "Æſculapius would not un- "dertake to patch up perſons habitually "complaining, leſt they ſhould beget chil- "dren as uſeleſs as themſelves; being per- "ſuaded, that it was an injury both to the "community, and to the infirm perſon him-

"ſelf,

" ſelf, that he ſhould continue in the world, " even tho' he were richer than Midas *."

If this tenet of Plato is rational or humane, let us never blame the Hottentots † for carrying their parents into the woods to die there, when they become ſo decrepit with age as to be unable to help themſelves. Nor ought we to find fault with the Padæan Indians, of whom Herodotus ‡ relates, that " when any man fell ſick among them, his " next neighbour killed him directly, leſt " he ſhould loſe his fleſh, and eat him up. " For which reaſon, as ſoon as any of that " nation found himſelf indiſpoſed, he with- " drew privately into ſome deſert place, " where he had no manner of care taken " of him, dead or alive," unleſs he happened luckily to recover, and return home of himſelf.

* ὧδὲ θεραπευτέον ἀυτυς. ὧδε ἂι Μίδυ πλουσιώτεροι εἶεν. De republ. 3.

† See Kolben's hiſtory of the Cape of Good Hope.

‡ Thalia, ſect. vel cap. 99.

It is a misfortune, indeed, to have an infirm conſtitution. But are all infirm perſons uſeleſs? Are not their underſtandings frequently clear, and of great ſervice to the community, when their bodies are unfit for labour? And what muſt become of the pleaſure and reward of beneficence, if all objects of compaſſion were permitted to periſh for want of aſſiſtance? Beſides, how many recoveries from various ailments does every age and every country produce! and how many perſons, after ſuch recoveries, have become a benefit and an ornament to their country!

When we conſider, therefore, that Plato, who, next to Socrates, was the glory of the Heathen world, could not, with all his ſcrutiny, and uprightneſs of intention, avoid falling into this and other vile and groſs abſurdities *; ſhould not our hearts glow with gratitude

* I mean, among other immoralities, the ſhameful licence of promiſcuous concubinage, which he gives to men and women at a certain age. I ſhall cite his own words from the

gratitude and praiſe to the bleſſed author of the Chriſtian ſyſtem, which has made the path of virtue ſo clear and plain, that no man is in danger of loſing his way, but he who ſhuts his eyes?

BUT to return: The Gymnaſtic art, to ſeaſon * youth for the fatigues of war, and

the Latin tranſlation of Serranus, to ſhew that I do not charge him wrongfully: "Quando igitur jam mulieres et viri æta-
"tem generationi aptam egreſſi fuerint, licere viris dicemus
"cuicunque voluerint, præterquam filiæ, et matri, et filia-
"rum filiabus, commiſceri; licere et mulieribus cum quo-
"libet copulari, præterquam filio atque patre, ac ſupe-
"rioribus, et inferioribus eorundem." De republ. lib. 5. p. 461. tom. 2. interpret. Serrani.

The Stoics alſo allowed the ſame ſcandalous indecencies: "Placet item illis uxores quoque communes eſſe inter ſa-
"pientes, ut quilibet illi congrediatur quæ ſibi occurrit." Laërt. vit. Zen. ſect. 131.——They likewiſe baniſh pity (which Zeno ranks with envy and grief) from their wiſe man. *This is our celebrated Portic philoſophy.*

* Homer repreſents the Grecian ſoldiers as highly entertained with their warlike exerciſe.

——λαοὶ δὲ παρὰ ῥηγμῖνι θαλάσσης
Δίσκοισιν τέρποντο —— Iliad. 2. lin. 280.

——on the ſandy ſhore
The troops in air their ſportive jav'lins throw,
Or whirl the diſk, or bend the ſtubborn bow.
POPE.

harden

harden champions * for the combat, was, indeed, practiſed long before the time of Herodicus; but he is generally reputed the firſt who introduced the medicinal Gymnaſtic. He was of Selymbria, a town in Thrace, or, as others conjecture, of Lentini in Sicily. Plutarch ſays of him, that, labouring under a decay, which he knew could not be perfectly cured, he was the firſt that blended the Gymnaſtic art with phyſic, in ſuch a manner as protracted to old age his own life, and the lives of others afflicted with the ſame diſtemper.

It is the opinion of the learned and judicious Daniel Le Clerc †, that the three books on diet, aſcribed commonly to Hippocrates, and publiſhed with his works, might have been compoſed by Herodicus. But in this I beg leave to differ from him, for three reaſons: *firſt*, Becauſe Hippocrates, in a

* We are told by Pliny, lib. 7. cap. 56. that the inſtitution of the Olympic games was as old as Hercules.

† Le Clerc hiſt. de la medic. par. 1. liv. 3. ch. 13.

book

book * allowed by all the world to be his own, obſerving, " that the ancients wrote " nothing concerning diet worth taking no- " tice of," could not decently have omitted to do honour or juſtice to his preceptor, had he been author of thoſe excellent tracts. *Secondly*, Becauſe in the paſſage † on which this accurate hiſtorian ſeems to build his conjecture, Galen does not aſcribe three books on diet to Euriphon, Phaon, Philiſtion, or Ariſton, but the ſingle book concerning *wholeſome diet*; on which Galen himſelf has written a commentary, where he aſcribes that performance to Polybus, as we ſhall ſee hereafter. And, *thirdly*, Becauſe theſe books diſcover ſuch a thorough knowledge of the nature and effects of aliment, according to the theory of thoſe times, and accommodate diet ſo judiciouſly to the preventing and removing various complaints,

* De rat. vict. in acut. ſub principio, he ſays, ἀτὰρ ὐδὲ περὶ τῆς δίαιτης οἱ ἀρχαιοι ξυνέγραψάν ὐδὲν ἄξιον λόγυ.

† Compare Le Clerc, in the place laſt cited, with Galen in libros Hippoc. de rat. vict. in acut. comment. 1. num. 18.

that

that it is not likely a maſter of an academy ſhould be capable of compoſing them, nor indeed any man but an accompliſhed phyſician, which Herodicus was not; of whom Hippocrates complains, that he killed *ſeveral perſons, by obliging them to uſe exerciſe in a fever.

CHAP. VI.

Of Hippocrates.—His general and particular precepts relating to the preſervation of health.

WE come now to a period of time much more enlightened than the former, by the genius and induſtry of Hippocrates, juſtly called *the father of phyſic* †, who has

* Herodicus febricitantes tum multis obambulationibus, tum multa lucta et fomentis conficiebat, idque male. Febris enim fami, luctæ, obambulationibus, curſibus, frictioni, iis utique omnibus eſt inimica. De morb. vulg. lib. 6. ſect. 3. aphor. 23.

† Primus Hippocrates medicinæ præcepta clariſſime condidit. Plin. nat. hiſt. lib. 26. cap. 2.

It is neceſſary to acquaint thoſe who may be diſpoſed to compare the citations from Hippocrates with the original, that they muſt look into the edition of Fœſius, printed at Geneva an. 1657, in two vols fol.

done

done more towards the advancement of that ſcience, than any other man ever did. He was born in Cos, an iſland in the Archipelago, about 458 years before the Chriſtian æra, of a noble family, being lineally deſcended by his father from Æſculapius, and by his mother from Hercules; and (which is moſt to his honour) was a man of ſtrict virtue and piety. Among other parts of phyſic, he treats on the preſervation of health with greater extent and accuracy than one would imagine, conſidering the time * in which he lived, and the little help he had from his predeceſſors.

THAT we may have a full and clear apprehenſion of his directions on this ſubject, I ſhall endeavour, *firſt*, to range in order all his precepts and remarks on the *ſix articles neceſſary to life*, vulgarly called the NON-NATURALS. *Secondly*, I ſhall take notice

* Hippocrates, according to Dean Prideaux, lived about the time of the Peloponneſian war, *i. e.* as the Reverend Mr Shuckford thinks, A. M. 3570.

of ſome general rules which he has laid down with regard to health, and of his obſervations upon them.

THE ſix articles indiſpenſably neceſſary to the life of man, are, air, aliment, exerciſe and reſt, ſleep and wakefulneſs, repletion and evacuation, together with the paſſions and affections of the mind.

Of AIR.

THOSE cities * which are ſituated towards the weſt, and are ſo covered from the eaſt, that the ſalutary winds from that point have no acceſs to blow away their noxious vapours, muſt of neceſſity be unhealthy †, and

* De aër. loc. et aq. p. 283. lin. 12. edit. Fœſii.

† This, and ſome other aphoriſms concerning the winds, relate chiefly to the climate and ſituation of Greece, and the adjacent countries, where Hippocrates made his obſervations, and where the eaſt and north winds blow over immenſe tracts of land, divided here and there by narrow ſeas; but are not ſo applicable to the countries where theſe winds blow directly from the ocean. With regard alſo to the heat and cold of the ſeaſons, the more northern climates do not requſre ſo cooling a diet in ſummer as that where our author lived.

their

their inhabitants ſubject to many and bad diſtempers.

THE air has an extraordinary influence on the human body in reference to health and ſickneſs, ſince we ſee that a man may live two or three days without aliment, but can ſcarce ſubſiſt a moment without air *, ſo neceſſary it is to the life of every animal. When therefore we find a diſtemper prevail † univerſally, and ſeize on perſons of all ages and conditions, how different ſoever their diet or manner of living may be; it is evident, that ſuch a diſtemper cannot ariſe from what people eat or drink, becauſe they differ widely in that reſpect, but from the air which ſurrounds them, and which they all breathe in common: and it would be needleſs, in ſuch a caſe, to alter the method of life that has always agreed with them; nay, it would be hurtful, becauſe ſudden

* De flatib. p. 296. lin. 50.

† De nat. hom. pag. 228. lin. 50. et ſeq.

changes, in all caſes, are dangerous. The only courſe to be taken under ſuch a calamity, is to alter the nature and qualities of the air, (if that be practicable), or to remove from it to an air which is untainted.

We ought to attend to the qualities of the air, whether it be hot or cold *, groſs or fine, moiſt or dry, and how it varies with regard to theſe qualities; and we muſt by experience learn the different effects of thoſe variations upon our health: And he who would attain to any uſeful knowledge † in the art of healing, muſt obſerve the ſeaſons of the year; for they differ extremely one from the other, and great are the changes which happen in them: and he ſhould eſpecially obſerve thoſe winds which are moſt familiar to the country where he lives.

* De morb. vulg. lib. 6. § 8. aph. 18. p. 1199.

† De aër. loc. et aq. in princip. p. 280.

THE north wind * blowing long, renders the body compact, ſtrong, nimble, and of a good colour; for it purges the air from groſs vapours, makes it pure and bright, and therefore is of all winds, generally ſpeaking, the moſt healthful: but ſtill it is attended with ſome inconveniencies; becauſe, to perſons unaccuſtomed to it, and to tender conſtitutions, it gives coughs †, ſore throats, pain of the breaſt, coſtiveneſs, chillneſs, and ſtrangury.

THE ſouth wind ‡, on the contrary, moiſtens the brain too much, weakens and relaxes the body, and occaſions defluxions.

A VERY dry ſeaſon ‖ is, upon the whole, more healthful than a very wet one.

* De morb. ſacr. p. 308. lin. 5. et ſeq. Vid. inſuper, ſect. 3. aphor. 17. p. 1247.

† Sect. 3. aphor. 5. p. 1247.

‡ De morb. ſacr. pag. 308. lin. 26. et ſect. 3. aphor. 17.

‖ Sect. 3. aphor. 15.

It is known by experience, that we can eat more *, and digeſt better, in winter and ſpring, than in ſummer and autumn; and indeed the former, eſpecially the winter, require a more plentiful nouriſhment than the latter.

In winter †, to reſiſt the cold, let your aliment be dry and warming. In ſpring ‡, when the weather grows mild, the diet ſhould be accommodated to the ſeaſon, and ſomewhat cooler and lighter. In ſummer, when the ſeaſon becomes hot and dry, the food ſhould be cooling, and the dring diluting. But after the autumnal æquinox ‖, your aliment ſhould again be of a warming nature, and your cloaths ⸸ thicker, by degrees, as you approach the winter.

The

* Sect. 1. aphor. 15. et 18. p. 1243.

† De vict. rat. lib. 3. p. 366. lin. 40.

‡ Ibid. pag. 367. lin. 37. et ſeq.

‖ Ibid. lib. 3. p. 368. lin. 34. et ſeq.

⸸ It is very remarkable, that tho' Hippocrates admoniſhes people to accuſtom themſelves gradually to a cooler diet, as the

THE ſpring *, generally ſpeaking, is the moſt ſafe and healthy, but the autumn the moſt dangerous and ſickly of all the ſeaſons. And, particularly, the ſpring, and beginning of ſummer, agree beſt with children, and very young perſons; ſummer, and the beginning of autumn, with old men; and the latter end of autumn, together with the winter, are healthieſt for the middle-aged.

THE ſpring breeds blood †, the ſummer bile, and the other ſeaſons ſuch humours as

the ſpring grows warm, yet he never adviſes them to lay aſide any of their winter-garments at that time; whereas, in autumn, he expreſsly orders them to guard againſt the approaching cold, ἐσθῆτι παχείῃ, *by thick cloathing*. And if he was ſo cautious in the warm climate of Greece, ſurely we who live in this iſland, where the weather often varies from hot to cold three or four times in a day, ſhould never lay aſide any of our winter-cloathing before the month of May, nor even then, unleſs the weather ſhould be uniformly warm.

Our judicious Sydenham obſerves, that the giddy practice of throwing aſide our winter-garments too early in the ſpring, and of expoſing our bodies, when overheated, to ſudden colds, has deſtroyed more than famine, peſtilence, and ſword. De feb. intercurrent. ſect. 4.

* Sect. 3. aphor. 9. p. 1247.

† De humor. pag. 50. lin. 53.

correſpond with their reſpective natures. The ſpring * alſo is the beſt ſeaſon of the year to loſe blood, or take phyſic, if either of them ſhould be proper, and can be conveniently deferred to that time. When the temperature † of the air correſponds with the nature of the reſpective ſeaſons, the year is healthful, and diſtempers ſlight; but when the weather is unnatural with reſpect to the ſeaſons, diſtempers are ſtubborn. Sudden tranſitions ‡, from great heat to extreme cold, are dangerous, and always produce bad diſtempers; and when theſe changes happen in the ſame day for any conſiderable time, we may expect ſtubborn autumnal diſeaſes.

We find, that not only the form and conſtitution of mens bodies, but their manners alſo, have a great affinity with the nature of

* Sect. 6. aphor. 47. p. 1258.

† Sect. 3. aphor. 8. p. 1247.

‡ Sect. 3. aphor. 1. et 4.

the

the climate which they inhabit. In Aſia *, where the ſeaſons are mild, and vary but little with regard to heat or cold, the productions of the earth are larger, and more beautiful than in Europe, and the men more humane and benevolent, but at the ſame time more indolent and ſlothful; for it is the extreme changes of the ſeaſons from heat to cold that rouſe the paſſions of the Europeans, and excite them to illuſtrious atchievements. It is true, that the nature of the Aſiatic government † contributes to make the men of that country ſtill more inactive than otherwiſe they would be; for as they live under arbitrary and deſpotic princes, without liberty or property, it is not worth their while to undergo dangers in performing gallant actions, where the whole fruit of their labour is reaped by an inſolent tyrant, and the brave adventurers have nothing but wounds and death for their portion. Under ſuch an abſolute and lawleſs government, it is the intereſt of a valiant man to be reputed a coward.

* De aër. loc. et aq. pag. 288. lin. 50. et ſeq.
† Ibid. pag. 290. lin. 35. et ſeq.

Of ALIMENT.

He who would thoroughly underſtand this ſubject, muſt not only know * what qualities every ſort of food is endowed with from nature, but alſo what new qualities it receives from art, in the various ways of dreſſing it. Flour of wheat, for inſtance, mixed with the bran, is opening, and of ſmall nouriſhment; but when pure and unmixed, nouriſhes much, and is not at all opening. And it is of great moment † to a man's health, whether his common bread be white or brown, well or ill baked.

Every phyſician ‡ ſhould endeavour to underſtand the nature and conſtitution of different perſons, with reſpect to what they eat and drink; and ſhould not only make himſelf acquainted with the various complaints which ariſe from various ſorts of aliment, but ſhould alſo know why they happen to

* De vict. rat. lib. 2. pag. 355. lin. 4. 25.
† De priſc. medic. pag. 13. lin. 17.
‡ Ibid. pag. 16. lin. 47. et ſeq.

ſome,

ſome, and not to others. Cheeſe *, for example, is hurtful to ſome, but agrees perfectly well with others: the cauſe of ſuch a difference, therefore, ſhould be found out, and the nature of thoſe humours known to which cheeſe is an enemy, that ſo they may be corrected, or cheeſe avoided.

THE human body contains four humours †, very different with reſpect to heat, cold, moiſture, and drineſs, *viz.* blood, phlegm, yellow bile, and black bile; which ſeveral humours we ſee frequently brought up by vomiting, and diſcharged by ſtool. Health conſiſts in a due mixture of theſe four; and whatever produces a redundancy in any of them, does hurt.

IT is very injurious to health to take in more food ‡ than the conſtitution will bear, when, at the ſame time, one uſes no exerciſe to carry off this exceſs. On the other hand ||,

* De priſc. med. pag. 17. lin. 7.
† De natur. homin. pag. 225. lin. 41. et ſeq.
‡ De flatib. pag. 297. lin. 36.
|| De priſc. med. pag. 11. lin. 17. et ſeq.

it is equally pernicious to take in leſs nouriſhment than the conſtitution requires; for abſtinence has great power over our nature, either to procure health, or to cauſe weakneſs and death. Many and various are the evils which ariſe from fulneſs; but thoſe which proceed from emptineſs are no leſs grievous: and it requires diligent obſervation to diſtinguiſh them; ſince we have no rule by which we can exactly know them, but only what we feel within ourſelves. It is therefore a difficult taſk to point out the beginning of any treſpaſs either on the ſide of fulneſs or emptineſs; and he who falls into the feweſt errors, is much to be commended.

A variety of aliments *, diſcordant in their nature, ſhould not be indulged at one meal, becauſe they make a diſturbance, and create flatulencies in the bowels.

Tho' larger meals † than nature requires will certainly breed diſtempers, if perſiſted in;

* De flatib, p. 297. lin. 38. † Sect. 2. aph. 17. p. 1245.

yet,

yet, upon the whole, it is to be obſerved, that a very ſpare and abſtemious diet is more dangerous * than one ſomewhat free and full; and a man ſuffers more from a ſmall treſpaſs on habitual abſtemiouſneſs, than from a conſiderable diminution of a full diet. A preciſe cuſtom of living, therefore, is not ſafe.

WHATEVER we eat which the ſtomach † can ſubdue, turns to good nouriſhment: but what we cannot digeſt, has a contrary effect, and contributes to waſte the body. Some ‡, from the ſtrength of cuſtom and conſtitution, can eat three plentiful meals every day. Thoſe who have uſed themſelves to make two meals in a day, if they ſhould happen to loſe one of them, grow weak and faint, have no inclination to work, and complain of pain at their heart. They feel alſo their bowels hollow, their eyes hea-

* Sect. 1. aph. 5. p. 1243.

† De loc. in hom. p. 422. lin. 19.

‡ De rat. vict. in acut. p. 388. lin. 38. et ſeq.

vy, their mouth bitter, and their extremities cold. Nevertheleſs, when they have, by any accident, loſt one of their meals, (ſuppoſe their dinner), they ought not to eat a plentiful ſupper to make up their loſs: for, if they do, it will lie heavy on their ſtomach; and they will have a more reſtleſs night after it, than if they had both dined and ſupped heartily. He, therefore, who has been accuſtomed to two meals in a day, and has miſſed his dinner, and faſted beyond his uſual time, and finds himſelf empty and faint, ſhould avoid cold, heat, and labour for that day, and ſhould make a lighter ſupper * than uſual, of ſome harmleſs ſpoon-meat, rather than of any ſtrong ſolid food.

On the other hand †, if they who have been accuſtomed to one meal in a day, ſhould

* I have often experienced the benefit of this precept, when, in the hurry of country-practice, I chanced, at any time, to loſe my dinner: for if I eat a hearty ſupper of fleſh meat, I was ſure to be ſick; but if I ſupped on a diſh of chocolate, or a meſs of water-gruel, or toaſt and negus, I reſted perfectly well.

† De priſc. med. p. 12. lin. 1.

chance

chance to eat two, they ſoon grow dull, heavy, and thirſty; and this ſingle treſpaſs has been the ſource of great diſtempers to many.

He who has taken a larger quantity * of food than uſual, and feels it heavy and troubleſome in his ſtomach, his wiſeſt courſe will be to vomit it up directly †.

That ſort of aliment is juſtly reckoned the lighteſt ‡, which being taken in a moderate quantity, or to ſome little exceſs, cauſes neither fulneſs, nor griping, nor wind, but is quickly digeſted, and, after a proper time, eaſily diſcharged. That ſort, on the contrary, is heavieſt, which being taken in a moderate, or even in a ſmall quantity, cannot be ſubdued by the ſtomach, but occaſions a fulneſs and uneaſineſs.

* De affect. p. 530. lin. 15.

† The wiſe ſon of Sirach confirms this precept, and ſays, Ecclus xxxi. 21. "If thou haſt been forced to eat, ariſe, "go forth, vomit, and thou ſhalt have reſt." And moſt certain it is, that hundreds have loſt their lives, and thouſands have ſuffered ſickneſs and pain, from their ignorance or neglect of this rule.

‡ De affect. p. 527. lin. 34.

Excess * in drinking is not quite ſo bad as in eating.

Growing † perſons have much innate heat, and therefore require a pretty large ſupply of nouriſhment, otherwiſe their bodies will waſte away: whereas old people having but a ſmall degree of heat, require only a ſmall quantity of aliment; for too large a quantity would quite extinguiſh the little heat they have remaining.

The ſorts ‡ of meat and drink moſt agreeable to the human body, and moſt conducive to good nouriſhment, health, and ſtrength, are bread, fleſh, fiſh, and wine: and yet, if theſe are taken to exceſs, they bring on diſtempers and death ſooner than aliments of a weaker, and leſs nouriſhing nature.

* Sect. 2. aph. 11. pag. 1244.

† Sect. 1. aph. 14. pag. 1243.

‡ De affect. pag. 528. lin. 17.

PREPARE * for perſons of a weak and delicate conſtitution ſuch food as ſhall not excite any flatulency, acid eructations, or griping; and give them ſuch as ſhall be neither too opening nor binding.

WHEN † a perſon recovering from a diſtemper eats his meat heartily, and yet receives no ſtrength, it ſhews that he eats more than he can digeſt; but if he eats very moderately, and receives no ſtrength, it appears that there are bad humours in the body, which ſhould be evacuated.

WHEN ‡ the body is impure, or loaded with bad humours, the more you nouriſh it, the more you hurt it.

Of particular ſorts of FOOD and DRINK in common uſe.

COARSE or brown bread || keeps the body open, but does not nouriſh much. White

* De affect. pag. 527. lin. 27.
† Sect. 2. aphor. 8. pag. 1244.
‡ Ibid. aphor. 10.
|| De vict. rat. lib. 2. pag. 356. lin. 2. et ſeq.

bread, pure, and ſeparated from the bran, nouriſhes more, but opens leſs. Leavened or fermented bread is light in digeſtion, and paſſes eaſily through the body; but unfermented bread does not go off ſo eaſily, tho' it nouriſhes more, where the ſtomach can conquer it.

BREAD * baked to-day (provided it be not eat hot from the oven) is generally preferable to that baked yeſterday, and old flour makes but bad bread.

THE fleſh † of wild animals is drier than that of tame, and of ſtall-fed, than that fed by paſture. The fleſh of animals in the vigour of their age, and of ſuch as are caſtrated, is beſt; and that of animals not uſed to any hard labour, is tendereſt. The fleſh ‡ of granivorous birds is not ſo moiſt or oily as that of ducks, and others which frequent the waters.

* De vict. rat. lib. 2. pag. 356. lin. 35.
† De vict. rat. lib. 2. pag. 358. lin. 16. et ſeq.
‡ Ibid. pag. 357. lin. 42.

MUTTON

MUTTON * is good both for the delicate and the robuſt; but beef is heavy; and pork is proper only for the robuſt † who uſe exerciſe, but is too ſtrong for the weak and ſedentary.

FISH ‡ that lives in ſtagnated waters, or that is very fat, is hard to digeſt; but ſuch as lives near the ſea-ſhore is light. Boiled fiſh alſo is lighter than roaſted. Bitter || things bind and dry the body; acid things make people thin, and gripe the ſtomach;

* De affect. pag. 528. lin. 51. et ſeq.

† Galen declares, that of all food pork is the beſt and moſt nouriſhing to people of robuſt conſtitutions who uſe a great deal of exerciſe; and this he confirms from the experience of the athletæ, or champions trained up for the Olympic games. "Suppoſe two champions (ſays he) of the "ſame ſtrength, to uſe the ſame exerciſe, and feed on "pork; if either of them ſhall change his diet, and live on "an equal quantity of any other ſort of meat for but one "day, he will immediately find himſelf weaker; and if "ſeveral days, he will not only grow feeble, but meagre "alſo, for want of his proper ſuſtenance." Claſſ. 2. de aliment. facult. lib. 3. cap. 2.

‡ De affect. pag. 529. lin. 10.

|| Ibid. lin. 32.

ſalt things promote ſtools and urine; fat and ſweet things breed moiſture and phlegm.

MILK * is hurtful to thoſe who are feveriſh, or afflicted with a headach; to thoſe whoſe bowels are ſubject to a flatulency or grumbling; and to thoſe who complain of thirſt. It is bad alſo for ſuch as void bile, or a conſiderable quantity of blood by ſtool; but good for the conſumptive and emaciated, provided they have not a pretty ſharp fever, or any of the above-mentioned complaints, at the ſame time.

ONIONS †, leeks, radiſhes, are hot and acrimonious. Muſtard and creſſes will occaſion a dyſury. Celery is diuretic. Such herbs as are aromatic and odorous, are heating. The colewort ſpecies reſolves the bile. Lettuce is cooling and relaxing. Cucumbers are cold, crude, and hard to digeſt. Ripe pears open the belly, but unripe bind it. Apples, of the acid kind, are more eaſily di-

* Sect. 5. aphor. 64. pag. 1255.
† De vict. rat. lib. 2. pag. 359. 360.

geſted

geſted than the ſweet and luſcious. All ſorts of pulſe * are windy, dreſs them which way you will.

HONEY †, taken alone, promotes urine, purges too much, and rather weakens than ſtrengthens; but mixed with other things, nouriſhes well, and gives a good colour.

Of WINE.

PURE unmixed wine ‡, drank too freely, weakens a man, which is plain to be ſeen by his actions.

SWEET wines ‖ hurt the head leſs, and promote ſtools more than ſtrong or dry wines; but they excite a flatulency in the inteſtines, and ſwell the bowels; nor do they agree with bilious habits of body, becauſe they increaſe thirſt. They alſo promote expectoration more, and urine leſs, than

* De vict. rat. in acut. pag. 404. lin. 28.
† De affect. pag. 529. lin. 50.
‡ De priſc. med. pag. 17. lin. 4.
‖ De rat. vict. in acut. pag. 392. lin. 23. et ſeq.

dry

dry white wines. Theſe are uſeful obſervations to which our anceſtors were ſtrangers. Tawny, or auſtere black wines, may be drank, with benefit, when the body is looſe, provided there be no diſorder in the head, and no impediment in ſpitting, or making water. It is likewiſe obſervable, that wine diluted with water, is more friendly to the head, breaſt, and urinary paſſages; but wine alone, or mixed with very little water, agrees beſt with the ſtomach and bowels.

HUNGER * is abated by a glaſs of wine.

Of WATER.

THESE waters † are beſt which ſpring from high places, and riſing grounds; and it will recommend them ſtill more, if their aſpect be towards the riſing ſun; for ſuch are generally limpid, light, and of a good flavour.

RAIN water ‡, collected in clean veſſels, is light, ſweet, and limpid; for that part of

* Sect. 2. aphor. 21. p. 1245.

† De aër. loo. et aq. pag. 284. lin. 20.

‡ Ib. p. 285. lin. 6.

the

the water attracted by the ſun, which produces rain, is the fineſt and lighteſt of the whole. But this water is apt to grow putrid, by having a great many foreign particles mingled with it; to prevent which, it will be proper to boil and ſtrain it for uſe.

ALL waters are bad which are produced from ice * or ſnow † diſſolved, for the lighteſt and moſt ſubtile parts of the water fly off in freezing, leaving the groſſeſt and heavieſt behind. I cannot therefore approve of ſuch water for any uſe. As turbid water from ice and ſnow is bad in winter, ſo ſtanding

* De aër. loc. et aq. p. 285. lin. 44.

† Boerhaave, in his elem. chem. tom. 1. pag. 601. ſpeaking of ſnow-water, ſeems at firſt ſight to contradict Hippocrates, and to affirm, that ſnow-water is pure and wholeſome. But when we conſider that Boerhaave ſpeaks of ſuch ſnow-water as can never come into common uſe; and ſuppoſes (for chymical experiments only) his ſnow to have fallen in a deſert, far removed from any inhabitants; and the ſurface of that ſnow to have been carefully collected; and concludes, that ſuch ſnow-water would be pure, light, and good; whereas Hippocrates ſpeaks of common ſnow-water impregnated with all the dirt and ſalts of the earth which it has waſhed: When we conſider this wide difference, I ſay, we ſhall find no contrariety in their ſentiments.

water

water * is ill coloured, ſtinking, and unwholeſome in ſummer, and occaſions various diſtempers.

THE healthy and ſtrong † may drink ſuch water as comes in their way indiſcriminately; but they who drink water for recovery of health, muſt be careful in the choice they make. The lighteſt, pureſt, and ſofteſt waters are moſt fit for them who are apt to be coſtive; whereas the hardeſt waters do moſt ſervice to thoſe whoſe bowels are too moiſt and phlegmatic.

HOT temperaments ‡ receive benefit from drinking water. Water-drinkers || have generally keen appetites.

Of MINERAL WATERS.

HIPPOCRATES juſt mentions hot ſprings ⸸, chalybeate ſprings, nitrous ſprings **, and

* De aër. loc. et aq. p. 283. lin. 34.
† Ibid. p. 284. lin. 38.
‡ De morb. vulg. lib. 6. ſect. 4. aph. 13. 18. pag. 1180.
|| Ibid. aphor. 18.
⸸ De aër. loc. et aq. p. 284. lin. 15. et ſeq.
** ἢ νίτρου.

other

other mineral waters; "but having had little "experience of their virtues, he gives them "no great character."

Of BATHING.

EVERY phyſician * ought to know what hurt may be done by unſeaſonable bathing.

A BATH † of freſh water gives moiſture and coolneſs to the body, but that of ſalt water heats and dries it. A hot bath waſtes and chills a perſon who uſes it faſting, but warms and moiſtens after meals. A cold bath, on the contrary, warms a man who goes in faſting, but chills and dries after meals. Tepid bathing ‡ is beneficial in many diſtempers: it gives eaſe in pains of the ſide, breaſt, and back, helps the breath, promotes ſpitting and urine, relieves a weight in the head, and removes laſſitude. But it requires nice management to fit up and uſe a bath properly.

* De priſc. medic. pag. 17. lin. 29.

† De vict. rat. lib. 2. p. 361. lin. 46.

‡ De rat. vict. in morb. acut. p. 395. lin. 6. et ſeq.

The paſſage to it ſhould be ſhort, and the ſteps in and out very eaſy. The patient ſhould be compoſed and ſilent while in it, and ſhould be waſhed and rubbed by the aſſiſtants. The misfortune is, few houſes have the proper conveniencies for bathing; and where theſe are wanting, a bath does more harm than good. Bathing, in general, is improper for thoſe who bleed at the noſe, or are very weak or ſick at the ſtomach; or too looſe, or too coſtive, unleſs theſe laſt are previouſly purged.

Of Cold WATER for common drink.

I can aſcribe no great virtues to cold water, ſays our author *, but only that it is ſometimes uſeful in acute diſtempers; for it neither † eaſes a cough, nor promotes ex-

* De rat. vict. in morb. acut. p. 394. lin. 30. et ſeq.

† Hippocrates ſeems in this place to deſcribe the effects of cold water upon diſtempered bodies only; "for there is no "doubt that cold water is the beſt and moſt wholeſome "common drink in nature to ſtrong healthy children, to vi-"gorous youth, and to others of a good conſtitution who "have been habituated to it, and with whom it has been "generally found to agree."

pectoration

pectoration in inflammations of the lungs, but cauſes an irkſome weight and fluctuation in the ſtomach. Neither does it quench thirſt, but rather increaſe it. It is found alſo, in ſome conſtitutions, to increaſe the bile, to impair the ſtrength, and to diſtend the bowels. As it is cold and crude, it paſſes off ſlowly, and promotes neither ſtool nor urine. And even in fevers, if you give it when the feet are cold, you do miſchief. Nevertheleſs, in complaints of a great weight in the head, or when the underſtanding is diſordered, we muſt either give water alone, or a ſmall white wine, and ſome water after it; for, by that mixture, the wine will do leſs hurt to the head and underſtanding.

Of SLEEP and WAKEFULNESS.

EACH * of theſe carried beyond its proper bounds, is injurious to health. Exceſſive † watching prevents the aliment from being digeſted, and generates crude humours.

* Sect. 7. aph. 73. p. 1261.

† De rat. vict. in acut. p. 392. lin. 17.

But the contrary extreme of too much ſleep relaxes the body, oppreſſes the head, and makes a man look as if he was parboiled.

NATURE * directs us to accuſtom ourſelves to wake † in the day and ſleep in the night; and he who acts contrary to this order, will ſuffer for ſuch folly.

THE body, when one is aſleep, ſhould always be well covered ‡ with cloaths; but the bed-chamber ſhould be large and airy.

WHEN a man's dreams at night correſpond with the actions of the day, and repreſent only ſuch things as are natural and proper to be done, they denote a good ſtate of health, and ſhew that there is neither ple-

* Galen obſerves upon this maxim, that, in the time of Hippocrates, cuſtom did not differ from nature; "but now "(ſays he) the rich invert the order of nature, and turn "night into day." De ſan. tuend. lib. 6. cap. 5.

† Prænot. p. 39. lin. 40.

‡ De morb. vulg. lib. 6. ſect. 4. aph. 14. cum interpretatione Galeni.

nitude

nitude which requires evacuation, nor emptineſs which requires a ſupply, nor any other beginning diſtemper. But thoſe dreams which are contrary to the actions of the day, denote a bodily diſorder *, which is great or ſmall, as thoſe dreams depart more or leſs from a man's natural actions or habits. I adviſe therefore, that, in ſuch caſes, the diſorder may be removed, and diſtempers prevented. If, for inſtance, we dream of evacuations, it ſhews that the body is too full, and wants proper diſcharges, by vomiting, abſtinence, or exerciſe. On † the other hand, a man, who dreams that he eats common food with an appetite, is too empty, and requires nouriſhment. Frightful dreams alſo diſcover a *ſtoppage of the blood* ‡, and ought to be removed by proper means. And he who minds theſe rules will always enjoy good health.

* De inſomn. p. 376. lin. 13.

† Ibid. p. 380. lin. 5.

‡ ἐπίσασιν τῦ ἄιματος σημαίνει.

Of

Of REPLETION and EVACUATION.

To preſerve * a good ſtate of health, a man ſhould void by ſtool every day, the dregs of what he has digeſted the day before.

Those † who eat and drink little, and yet go through a great deal of fatigue, are commonly coſtive, and do not go to ſtool, ſometimes, in three or four days; from which they are in danger of falling into a fever, or a looſeneſs. But thoſe who feed plentifully, and alſo undergo much fatigue, have ſoft and figured ſtools in proportion to their food and exerciſe. And it is obſervable, that when ſeveral perſons, who are all temperate and healthy, eat the ſame quantity, but differ in their exerciſe, thoſe who labour the leaſt have the greateſt number of ſtools, and thoſe who labour moſt have the feweſt.

* De morb. pag. 511. lin. 23.

† Prædict. lib. 2. pag. 87.

THE complaints which proceed from repletion *, are cured by proper evacuations; and thoſe which ariſe from too large evacuations, are removed by a gradual repletion.

IT is beſt † for young people to have their bodies moderately open, and for old people to be ſomewhat bound.

THOSE ‡ who diſcharge much by urine, have but few ſtools.

WHEN || it becomes neceſſary to cleanſe the body, thoſe who are thin and bear vomiting well, ought to take a puke; but thoſe who are fleſhy and hard to vomit, ſhould be purged downward. And it is in general to be obſerved, that a puke, where it agrees, is beſt in ſummer, and a purge in winter.

* De natur. homin. pag. 228. lin. 17.
† Sect. 2. aph. 53. pag. 1246.
‡ Sect. 4. aph. 82. pag. 1252.
|| Sect. 4. aph. 4. 6. 7.

THOSE

THOSE who are in a good ſtate * of health, are hurt by purging phyſic.

MODERATE † commerce with the ſex is of ſervice to ſuch as are loaded with phlegm: but commonly it binds the belly.

Of MOTION and REST.

THE complaints ‡ which ariſe from immoderate labour, are cured by reſt; and thoſe which proceed from ſloth, are removed by exerciſe.

IF the whole body ‖ ſhould reſt a great deal longer than uſual, it will not become ſtronger for that reſt; and the ſame obſervation holds good with reſpect to every member of the body. And if, on the other hand, after a long habit of idleneſs, a man

* Sect. 2. aph. 36. 37.

† De morb. vulg. lib. 6. ſect. 5. aph. 22. 26.

‡ De natur. hom. p. 228. lin. 18.

‖ De vict. rat. in morb. acut. p. 391. lin. 29.

enters

enters directly upon hard labour, he will be ſure to do himſelf hurt. The feet, by a long ſtate of reſt, are diſqualified for much walking; and the other limbs, by long inaction, loſe in a great meaſure their uſe. And a ſoft bed is as irkſome to a perſon unaccuſtomed to ſuch eaſe, as a hard bed is to him who lies at home on down.

He who *, from conſtant fatigue, falls into an inactive ſtate, muſt live abſtemiouſly, otherwiſe his body will be ſoon tortured with pain, and oppreſſed with a load of humours.

Those † who ſeldom uſe any motion, are wearied by the ſmalleſt exerciſe; but ſuch as are accuſtomed to labour, can bear a great deal without fatigue.

Friction ‡, or chafing, makes the body warm, firm, and fleſhy.

* De vict. rat. in morb. acut. pag. 392. lin. 5.
† Ibid. pag. 364. lin. 33.
‡ Ibid. lin. 7.

READING aloud *, and ſinging, warm and dry the body; and of all exerciſes walking ſeems the moſt natural to men in good health.

UNIVERSALLY ſpeaking, moderate † exerciſe gives ſtrength to the body, and vigour to the ſenſes.

EXERCISE ‡ is wholeſomeſt and beſt before meals.

Of the PASSIONS and AFFECTIONS of the MIND.

VIOLENT anger ‖ contracts the heart and lungs, and fills the head with hot humours; but tranquillity of mind unbends the heart,

FEAR and grief ⸸, if they continue long, portend melancholy.

* De vict. rat. in morb. acut. pag. 363. lin. 5.
† Ibid. pag. 362. lin. 46.
‡ De morb. vulg. lib. 6. ſect. 4. aph. 28. pag. 1181.
‖ Ibid. ſect. 5. aph. 8. pag. 1184.
⸸ Ibid. ſect. 6. aphor. 23. pag. 1257.

TERROR,

TERROR *, ſhame, joy, and anger, have a great influence on the body, and determine it to actions correſpondent to their reſpective natures. Thus the ſudden ſight of a ſerpent will make the countenance pale; and to walk upon the edge of a pit, will make the legs tremble.

CARE † and meditation are the exerciſe of the mind.

Having thus given a detail of all that I could find in the writings of Hippocrates, relating to the ſix articles neceſſary to human life, I ſhall, in the next place, proceed to his other general rules with regard to the preſervation of health.

The Firſt General RULE.

EVERY exceſs ‡ is an enemy to nature. And this he confirms by another aphoriſm ‖, which informs us, that in la-

* De humor. pag. 49. lin. 35.
† De morb. vulg. lib. 6. ſect. 5. aphor. 10. pag. 1184.
‡ Sect. 2. apher. 51. pag. 1246.
‖ De morb. vulg. lib. 6. ſect. 6. aph. 5. pag. 1190.

bour, meat, drink, ſleep, and commerce with the ſex, a juſt mediocrity and moderation ſhould be obſerved; and by a third, which declares, that evacuations * purſued to exceſs are dangerous, and plenitude carried to an extremity is equally pernicious.

The Second General RULE.

It is dangerous † to change ſuddenly a long habit which a perſon has contracted, or to run from one extreme into another. He ſays alſo in another place ‡, that people muſt have a particular regard to what they have been accuſtomed to in food, raiment, exerciſe, ſleep, concubinage, and the paſſions of the mind. And he is ſo poſitive with reſpect to the truth of this rule, as to declare, that even a bad diet ||, which has been long perſiſted in, whether by eating or drinking, is leſs injurious to health than a ſudden tranſition to a better diet. This he alſo il-

* Sect. 1. aph. 4. pag. 1243.
† De rat. vict. in morb. acut. pag. 389. lin. 20.
‡ De morb. vulg. lib. 6. ſect. 8. aph. 43. pag. 1201.
|| De vict. rat. in morb. acut. pag. 388. lin. 20.

luſtrates

luſtrates farther, by ſhewing, that he who has been habituated to drink wine *, and comes of a ſudden to water, will feel the inconveniencies of the change, from the weight and flatulency produced by the water; while, on the other hand, a quick tranſition from water, or from wine and water, to wine alone, occaſions thirſt, palpitations, and diſorders of the head.

The Third General RULE.

THE great preſervatives † of health are *temperance* and *exerciſe*. Or, as he expreſſes himſelf more diſtinctly in another place, if an exact proportion ‡ could be adjuſted between the quantity of aliment taken in to nouriſh every individual, and the meaſure of exerciſe ſufficient to carry off that quantity, ſo that the one ſhould not exceed or fall ſhort of the other; ſuch adjuſtment would fix the true ſtandard of health, and

* De rat. vict. in morb. acut. pag. 389. lin. 46.
† De morb. vulg. lib. 6. ſect. 4. aph. 20. pag. 1180.
‡ De vict. rat. lib. 1. pag. 341. lin. 23.

diſtempers

diſtempers might with certainty be avoided. For as *aliment* fills *, and *exerciſe* empties the body, the reſult of an exact equipoiſe between them muſt be, to leave the body in the ſame ſtate they found it, that is, in perfect health. And tho' he allows that ſuch a balance between diet and exerciſe cannot be preciſely ſettled †, becauſe ages, conſtitutions, and ſeaſons differ widely, and require a different treatment; yet he thinks it poſſible to obſerve the ſmalleſt exceſs on either ſide, as ſoon as it happens, and ſo prevent it from going farther, and increaſing into a diſtemper; for moſt diſtempers, ſays he, do not ſeize people ſuddenly, but grow ‡ by degrees. And he values || himſelf not a little on being the firſt who found out this *preventive care*, and wonders that none of the ancients thought of it, ſince nothing could be more worthy of their attention.

* De rat. vict. lib. 1. p. 341. lin. 7.
† Ibid. lib. 3. p. 366. lin. 5. et ſeq.
‡ Ibid. lib. 1. p. 341. lin. 37.
|| Ibid. lib. 3. p. 369. lin. 1.

I have diſcovered * thoſe ſymptoms, ſays he, by which every exceſs, either of food above exerciſe, or of exerciſe above food, may be known in its beginning, and prevented from breaking out into a diſtemper; which will prove nearly of the ſame benefit to mankind, as if a juſt æquilibrium between diet and exerciſe could be found out.

It is difficult to reduce the many ſymptoms enumerated by Hippocrates, in his third book of diet, belonging to this exceſs either of aliment or exerciſe, to diſtinct claſſes: I ſhall endeavour, however, to do it with all the plainneſs and conciſeneſs I can, conſiſtently with the ſpirit and meaning of the author; and, to that effect, ſhall range them in the following order. Firſt, then, he treats of thoſe ſymptoms which ariſe from the exceſs of food above exerciſe; and, ſecondly, of thoſe which ariſe from the exceſs

* De rat. vict. lib. 3. p. 366. lin. 18.

of

of exerciſe above food. The former may be reduced to ſix aſſemblages or claſſes.

Firſt, Some feel a ſtuffing * and fulneſs in their noſtrils, after ſupper, without any apparent cauſe; but cannot diſcharge any mucus, until they have uſed ſome exerciſe next morning; their eye-lids, in a little while, grow heavy, and, by degrees, they loſe their appetite and colour; which is at laſt followed by a defluxion or fever, when any accident has put their load of humours in motion. Theſe are marks of a gradual repletion, tho' people are ready to blame ſome particular inadvertency they were guilty of; which, however, could, by no means, produce ſuch complaints. But we muſt not wait until this repletion is accumulated; on the contrary, as ſoon as we have obſerved the firſt-mentioned ſymptoms, we muſt diminiſh the quantity of our food, and increaſe our exerciſe, until all thoſe marks of repletion are removed.

* De rat. vict. lib. 3. pag. 369. lin. 10. et ſeq.

Secondly,

Secondly, Others *, when their diet bears too great a proportion to their exerciſe, not only ſleep well in the night, but are likewiſe drowſy in the day; the repletion ſtill increaſes, and their nights begin to grow reſtleſs; their ſleep afterwards becomes diſturbed with frightful dreams of battles. When this happens, there is danger leſt the accumulated humours ſhould fall upon ſome part, and overwhelm it. But that danger muſt be prevented by ſubtracting from the aliment, and adding to the exerciſe.

A *third* ſort † of complaints, ariſing from repletion, is a pain, or laſſitude, ſometimes in one part, and ſometimes in another, and ſometimes all over the body. People think to relieve themſelves from this laſſitude by lazineſs and indulgence, until they increaſe their complaints into a fever, which ſhould have been prevented by a contrary courſe of abſtinence and exerciſe.

* De vict. rat. lib. 3. pag. 369. lin. 45.

† Ibid. pag. 370. lin. 9.

A *fourth* aſſemblage * of ſymptoms is indigeſtion and flatulence, which daily increaſing, occaſion a diſturbance in the inteſtines; and the food is thrown out, at firſt, liquid and corrupted, without pain; but afterwards, the bowels being eroded by the acrimony of the humours, a diſcharge of blood or a dyſentery ſucceeds; which is a dangerous diſtemper, and ought to have been prevented, by taking leſs food, and uſing more exerciſe, when the flatulency and bad digeſtion began to grow troubleſome.

Fifthly, Some †, from repletion, are apt to grow pale, and to be troubled with acid eructations; but they may prevent danger, by taking a vomit, and by uſing a ſmaller quantity of food, and more exerciſe, for ſome days.

Laſtly, Some perſons ‡, from repletion, eſpecially ſuch as are groſs, ſweat profuſely

* De vict. rat. lib. 3. p. 371. lin. 3. et ſeq.
† Ibid. lin. 45.
‡ De vict. rat. lib. 3. p. 372. lin. 17. et ſeq.

in their ſleep, which gives them no great uneaſineſs in the beginning; though, in proceſs of time, it becomes the cauſe of pain and diſtempers. And it is obſervable, that they are moſt apt to fall into this diſorder, who, from a long habit of idleneſs, come, of a ſudden, to uſe exerciſe. But thoſe bad conſequences may be prevented by a ſubtraction of food, and a gradual increaſe of exerciſe.

HAVING thus given a diſtinct view of the various kinds of complaints produced by an exceſs of food above exerciſe, he comes next to ſhew the inconveniencies which proceed from the contrary exceſs of exerciſe above food; and theſe may be reduced to three ſorts.

Firſt, Some, from too much exerciſe *, in proportion to their diet, complain, after a little time, of a heat in their bellies, and then of pain; they loath their food alſo, and their bowels become ulcerated, which brings on a looſeneſs, very difficult to ſtop. But a

* De rat. vict. lib. 3. p. 373. lin. 40. et ſeq.

prudent foreſight will obviate theſe growing evils, by ſubtracting one half of the exerciſe, and by uſing a cool dry diet for ſome days, one third leſs than in a ſtate of health; and then proceed gradually to take more ſuſtenance, and uſe leſs exerciſe than before.

Secondly, Others *, from exceſs in exerciſe, are afflicted with an extreme coſtiveneſs, a drineſs and bitterneſs of the mouth, and, after a while, with a ſuppreſſion of urine and ſtool. Whatever they eat or drink is then thrown up, and at laſt the fæces are vomited, which commonly terminates in death. But whenever one perceives a heat and drineſs predominant, it will be eaſy, by removing them, to prevent farther miſchief; and that is done by warm bathing, quiet ſleep, a cooling, moiſtening, and nouriſhing diet, gradually increaſed; and by withdrawing one half of the former exerciſe.

A *third* ſort †, from a diminiſhed proportion of food with reſpect to their labour, fall

* De vict. rat. lib. 3. p. 374. lin. 17. et ſeq.

† Ibid. p. 375. lin. 10.

into

into ſhiverings after walking or any other exerciſe, ſo that ſometimes their teeth chatter with cold; they afterwards grow drowſy, and when they awake, yawn and ſtretch; and are at laſt ſeized with a malignant fever. To prevent which they muſt leſſen their exerciſe one half, and uſe at firſt ſome cool, ſoft food, and drink diluted wine; and riſe by degrees to ſuch a proportion of diet as will better ſupport them under their labour.

And here the good old man adds, that thoſe whoſe labour * exceeds their ſuſtenance, and who have impaired their ſtrength by fatigue, may take a chearful glaſs once or twice, *but not to exceſs.*

Some have pretended that Hippocrates, in this place, adviſes people to get drunk on certain occaſions. Others have gone farther, and recommended the getting drunk once or twice every month as conducive to health;

* De vict. rat. lib. 3. pag. 375. lin. 26. et ſeq.

and

and have quoted Hippocrates to juſtify their intemperance. But ſuch opinions have no ſort of foundation in this paſſage. The word uſed by Hippocrates is *μεθυσθῆναι, to drink a chearful glaſs*; which, in this place, is preciſely equivalent to the expreſſion *πίνοντα θερμαίνεσθαι, to be warmed with wine*, frequently met with among the Greek writers. Plutarch, in his ſympoſiacs, or *table-converſations*, compares *μέθυειν* to *ἔρᾶν*, or *wine* to *love*, as each equally renders men warm, chearful, and unreſerved. And hence, ſays he, it was commonly reported, that Æſchylus compoſed his tragedies when he was warmed with wine. I have cited his words at the bottom of the page *. He makes in the ſame place this obſervation of his grandfather Lamprias, that he diſputed beſt, and unravelled the difficulties of philoſophy with moſt ſucceſs, when he was at ſupper, and well warmed with wine. *The*

* Ἐλέχθη δὲ καὶ ὅτι τῷ μέθυειν τὸ ἐρᾶν ὅμοιόν ἐστι. Ποιεῖ γὰρ θερμοὺς καὶ ἱλαροὺς καὶ διακεχυμένους.— Καὶ τὸν Αἰσχύλον φασὶ τὰς τραγῳδίας πίνοντα ποιεῖν καὶ διαθερμαινόμενον. Plutarch. Sympoſ. lib. 1. quæſt. 5.

cups

cups went round with the debates, ſays Dryden in his life of Plutarch, *and men were merry and wiſe together*. The ſame word μέθυω is uſed alſo in the goſpel of St John, ii. 10. and from the circumſtances there deſcribed is judiciouſly tranſlated, *when men have well drunk*, or *have drank to be chearful*. The meaning of Hippocrates is preciſely the ſame in this precept, which is evident from the reſtriction annexed, πλὴν ἀλλὰ μὴ ἐς ὑπερβολήν ; *ſed non ſupra modum*.

LET not therefore the patrons of drunkenneſs ſcreen themſelves under the authority of Hippocrates, who was a man of the greateſt temperance and probity, and whoſe precept is ſupported by the obſervation of Homer, that lived three hundred years before him, and ſays,

Ἀνδρὶ δὲ κεκμηῶτι μένος μέγα οἶνος ἀέξει *.

The weary find new ſtrength in generous wine.

POPE.

* Iliad. lib. 6. lin. 262. edit. Glaſguenſ.

CHAP.

CHAP. VII.

Of Polybus, Diocles Caryſtius, Cornelius Celſus, and Plutarch, concerning health.

Of POLYBUS.

WE have, among the works * aſcribed commonly to Hippocrates, a ſhort tract, *concerning wholeſome diet*, which Galen, in his commentary upon it, ſuppoſes to have been written by Polybus, the diſciple and ſon-in-law of Hippocrates.

THIS Polybus, after the death of his maſter, taught † his ſchool with great reputation. He lived about 410 years before Chriſt.

IN this tract the author adviſes thoſe who are in circumſtances to live as they pleaſe, to eat heartily, in winter, of bread and roaſted

* De ſalubr. vict. rat. pag. 337. lin. 1. et ſeq.

† See Le Clerc hiſt. de la med. part 1. liv. 4. chap. 1.

fleſh,

fleſh, but to drink ſparingly; and let their wine be unmixed and good, in order to keep themſelves warm, and free from a load of bad humours in that cold and damp ſeaſon.

In ſummer, for contrary reaſons, he recommends a cool diet, conſiſting chiefly of vegetables and boiled meat, and orders people to drink plentifully of ſmall diluting liquors.

In ſpring and autumn he directs a middle regimen between thoſe two extremes; approaching in the ſpring, as the weather grows milder, to the cool diet of ſummer; and receding from it gradually in autumn, not only toward the warm aliment, but alſo toward the warm cloathing of winter *.

A regard muſt alſo be had to different ages and temperaments; the young, the dry,

* De ſalubr. vict. rat. pag. 338. lin. 13. See on this place the notes of Galen, who thinks that by *veſtes puras* the author may mean warm cloathing, though he does not approve of the phraſe.

thin, and black, requiring a cool moiſt diet; and old people a warm moiſt diet throughout the whole year; whereas perſons of a groſs relaxed habit of body, the flabby, and red-haired, ought always to uſe a drying diet.

SUCH as are fat *, and deſire to be lean, ſhould uſe exerciſe faſting; ſhould drink ſmall liquors a little warm; ſhould eat only once in a day, and no more than will juſt ſatisfy their hunger; and ſhould lie on hard beds: whereas thoſe that are lean, and want to be plump, ſhould purſue a contrary courſe.

Of DIOCLES CARYSTIUS.

THE next who has touched upon this ſubject of the preſervation of health, was Diocles of Caryſtos in Eubœa, an iſland of the Archipelago near the coaſt of Greece. He was a phyſician of great merit, and had the honour of being called the ſecond Hippocrates. We have ſtill his letter † to Antigonus, one

* De ſalubr. vict. rat. pag. 338. lin. 14. et ſeq.

† This letter is commonly printed with Paul Ægin. lib. 1. cap. 100.

of

of the ſucceſſors of Alexander the Great, which ſhews the time in which he lived.

In this letter he tells the King, (whom he compliments with the titles of *muſician*, *mathematician*, and *philoſopher*), that as no tempeſt ariſes in the heavens without previous ſigns, which ſailors, and other ſkilful perſons, know; ſo no diſtemper attacks the human body without firſt giving notice of its approach. He divides the body into four principal parts, the *head*, the *breaſt*, the *belly*, and the *bladder*.

The previous ſymptoms of bad diſtempers likely to fall upon the *head*, are giddineſs, pain, and a weight over the eye-brows, ſinging in the ears, pulſation of the temples, dimneſs and ſwelling of the eyes in a morning, loſs of ſmell, or turgid gums. When any ſuch ſymptom therefore is felt, it ſhould be removed by keeping the head warm, and purging it with muſtard boiled in honey and water, or a gargle of a decoction of hyſſop

131

and raiſins. But if thoſe previous ſigns are neglected, inflammations of the brain, quincies, or ſome other dangerous diſtemper, may enſue.

DISTEMPERS of the *breaſt* are foreboded by ſweating, chiefly over the thorax; a foul tongue; a ſalt or bitter taſte in the mouth; pain under the ribs or ſhoulder-blades; anxiety after ſleep; coldneſs of the breaſt and arms; and a tremor of the hands. But theſe previous ſymptoms muſt be removed by gentle vomits, to prevent pleuriſies and peripneumonies, which otherwiſe may follow.

DISTEMPERS of the *belly* are threatened to thoſe who complain of gripings; bitter eructations; ſtiffneſs of the loins; flying pains all over the body, without any apparent cauſe; numbneſs of the legs; or ſlight fevers. When one or more of theſe ſymptoms become troubleſome, your diet ſhould be ſuch as you know by experience to be opening, otherwiſe

otherwiſe a dyſentery, hæmorrhoids, or gout, may ſoon ſucceed.

LASTLY, The forerunners of bad diſtempers about the *bladder* are, a ſenſe of fulneſs when you have eat but little; flatulency; dark-coloured urine voided with difficulty; or a ſwelling about the lower parts of the belly. When any of theſe ſymptoms appear, you ought to make uſe of mild diuretics, ſuch as the roots of fennel and celery infuſed in white wine, of which you ſhould drink a glaſs or two every morning, upon an empty ſtomach, mingled with ſome ſmall diuretic water. But if you neglect this precaution, a dropſy, ſtone, or ſtrangury, may be the conſequence.

Of CORNELIUS CELSUS.

THO' many celebrated phyſicians flouriſhed in the ſpace of three hundred years which intervened between Diocles, who lived under Alexander the Great, and Celſus, who lived under Tiberius; yet it has unfortunately happened,

happened, that only a few ſhreds of their works have come down to us; and in theſe there is nothing of moment relating to our ſubject.

CELSUS is much more methodical in his arrangement of thoſe rules which he lays down for the preſervation of health, than Hippocrates; tho' he prudently borrows many of them from that great man. He obſerves the following perſpicuous order.

Firſt, He inſtructs ſtrong hearty people how to preſerve that good ſtate of health which they enjoy.

Secondly, He admoniſhes the infirm and valetudinary to rectify the natural or acquired defects of their conſtitution.

AND, *thirdly*, He gives particular directions, accommodated to particular incidents, ages, ſeaſons of the year, and infirmities. But in this abſtract I ſhall not trouble the reader

reader with ſuch of his precepts as are now exploded, and of ſmall importance; or have been mentioned already; or are calculated rather to cure ſome tranſient maladies, than to preſerve health.

RULES for the Healthy and Robuſt.

A MAN who is ſound and ſtrong ſhould tie himſelf down to no particular rule of diet, nor imagine that he ſtands in need of a phyſician; he ought frequently to diverſify his manner of living; to be ſometimes in town, ſometimes in the country: he ſhould refuſe no manner of food that is commonly uſed; ſhould, at different times, hunt, ſail, ſit ſtill, but oftener uſe exerciſe; ſhould ſometimes indulge himſelf at feaſts, and ſometimes avoid them; ſometimes eat and drink * more than

* Great diſputes have ariſen concerning this rule of Celſus: his words are, "Modo plus juſto, modo non amplius aſſumere." Some approve of the full latitude he gives, others highly blame it. Verulam thinks, that exceſs in eating and drinking ſhould now and then be indulged: "Epulæ profuſæ et perpotationes non omnino inhibendæ ſunt." Hiſt. vit. et mort. p. 341. Melchior Sebizius, on the other hand,

than is proper, and ſometimes not exceed; ſhould rather make two meals than one in a day, and always eat a great deal *, provided he is able to digeſt it.

hand, affirms, that, by this advice, Celſus gives full ſcope to intemperance, and ſets himſelf up for a patron of gluttons and drunkards: "Quibus verbis comedonum, bibonum, "helluonum, patronum agere videtur; et latam, quod aiunt, "feneſtram, aſotiæ et confuſioni aperire: nam ſi quod di-"cit verum eſt, videntur ſane regulæ Hygieines inverti, quæ "opportunum tempus, decentem quantitatem, et debitam "qualitatem requirunt. Natura enim ordinem requirit, "ſuntque motus illius definiti, et ordinati." De aliment. facult. lib. 5. probl. 72.

And Sanctorius ſays, that it is not ſafe for all healthy perſons to obſerve this rule: "Celſi ſententia non eſt omni-"bus tuta." Sect. 3. aph. 42.

The truth is, a healthy man ſhould not bind himſelf down to an over ſtrict and abſtemious diet, as Hippocrates has obſerved; nor to a regular uniformity in his way of living, becauſe, in caſe any neceſſity ſhould oblige him (which frequently happens) to alter the habit he has contracted, a quick tranſition to a new method might prove dangerous. It is the wiſeſt courſe, therefore, for perſons in health to vary their way of living often, that ſo no new change may happen which can hurt them. This diverſity, nevertheleſs, ought to be kept within the bounds of temperance; and Celſus gives too great a latitude, which ſeems to encourage exceſs, directly contrary to the firſt general rule of Hippocrates.

* This rule is liable to be miſtaken: for a man ſhould never overload his ſtomach, but ought to riſe from meals with ſome appetite.

COMMERCE with the fair ſex is neither too wantonly to be indulged, nor too timorouſly to be ſhunned. When moderate, it renders the body lively; but too frequently uſed, waſtes and enervates. This frequency, nevertheleſs, is to be eſtimated by a man's age and ſtrength; for that commerce is harmleſs, which is not ſucceeded by pain or low ſpirits.

HE concludes his directions to the ſound and robuſt, with this admirable precept, *viz.* "* Be careful in time of health not to de- "ſtroy, by exceſſes of any kind, that vi- "gour of conſtitution which ſhould ſup- "port you under ſickneſs."

RULES for the Delicate and Infirm.

PEOPLE of tender conſtitutions (among whom may be reckoned the greateſt part of our citizens, and almoſt all men of letters)

* Cavendum ne in ſecunda valetudine adverſæ præſidia conſumantur. Lib. 1. cap. 1.

muſt be regular in their way of living, and correct, by care, thoſe diſorders which ariſe from a weak frame of body, from a bad air, or much ſtudy.

A TENDER perſon ſhould dwell in a well-lighted, chearful houſe, which is airy in ſummer, and enjoys the ſun in winter; and ſhould avoid mid-day heats, morning and evening colds, and damps of all kinds. Let the bookiſh and contemplative man take care not to ſtudy too ſoon after meals. And let even the man of buſineſs, and the ſtateſman, ſpare a few hours for the purpoſe of health, and be ſure to uſe ſome convenient exerciſe every day before meals, ſuch as reading aloud, walking, or playing at * ball of

* The Greeks played with four ſorts of balls; the *little ball*; the *great ball*; the σφαῖρα κένη, or *empty ball*, *i. e.* blown up with air like our foot-ball; and the κώρυκον, which was a *huge leathern ball*, hung from the ceiling, and ſtuffed with bran or ſand, as thoſe who toſſed it were robuſt or delicate.

The Romans had alſo four ſorts; firſt the *follis*, which was a pretty large ſort of hand-ball, made of ſkin blown up with air;

of ſome ſort; which exerciſe he ſhould perſiſt in, until he finds himſelf either in a gentle ſweat, or a little tired, but no longer.

air; in which, according to Suetonius, Auguſtus Cæſar took great delight; and was, as we learn from Martial, a proper exerciſe for young and old.

Folle decet pueros ludere, folle ſenes.

Lib. 14. epigr. 43.

2. The *trigonalis*; of which Celſus ſays, that it exerciſes the upper parts of the body; and which the learned Mercurialis conjectures to have been nearly the ſame with *tennis*: "Eo prope modo quo noſtrates ſupra funiculum ludunt."

3. The *paganica*, or common village ball, made of leather ſtuffed with feathers, larger than the *trigonalis*, and harder than the *follis*.

4. The *harpaſtum*, which was a ſmall ball toſſed, rebounded, and catched from the ground, not unlike, it ſhould ſeem, to the play at *fives* in England. Mer. de re. gymn. lib. 2. cap. 5.

All I ſhall remark upon the whole, is, that the high encomium juſtly beſtowed by Galen upon the play at *little ball*, as the beſt of all exerciſes to preſerve health, is equally applicable to *tennis*, and to the play called *golf* in Scotland; and that it is pity ſuch manly and healthful exerciſes ſhould be ſo much diſuſed.

Golf is a ſafe and moderate exerciſe, performed on a bare ſmooth common, by driving two ſmall hard balls with proper *bats*, always forward to very diſtant holes in the ground, about a foot deep, and nine inches over; and the party whoſe ball is driven into the hole with the feweſt blows, (which are carefully numbered on both ſides), obtains the victory.

LARGE * meals are ever hurtful to a tender conſtitution. Confections and delicacies are bad on two accounts; *firſt*, Becauſe they tempt people to eat more than enough; and, *ſecondly*, Becauſe they are hard of digeſtion.

Of UNEXPECTED INCIDENTS.

IF a man muſt neceſſarily remove his habitation into a worſe air, he had beſt do it in the beginning of winter.

IT is imprudent to contract a habit of idleneſs at any time, becauſe a man may chance to be under a neceſſity to work.

TO a perſon ſweating with labour, there is nothing more pernicious than to drink cold water; nor is it proper for ſuch as are wearied with a journey, though their ſweat be gone off.

FATIGUE is often eaſed by change of labour; and he who is tired with any unuſual

* Ubi ad cibum ventum eſt, nunquam utilis eſt nimia ſatietas.

ſort

ſort of work, is refreſhed by that to which he has been accuſtomed.

THOSE who are much fatigued, ſhould, if poſſible, ſleep in their own beds * ; for a ſtrange bed does not refreſh them near ſo much.

Of CONSTITUTIONS and AGES.

IT is expedient, before all things, to underſtand a man's particular nature and habit of body. Some are too meagre, others too fat ; ſome hot, others cold ; ſome moiſt, others dry ; ſome too coſtive, others too lax. Now, all thoſe extremes ſhould be rectified as much as poſſible, and every conſtitutional complaint which endangers health, gently and gradually removed.

THE meagre † ſhould be plumped up by very gentle exerciſe, and long intervals of reſt,

* This is generally true, but not univerſally.

† "I reduced a huge fat fellow to a moderate ſize in a "ſhort time, (ſays Galen), by making him run every morn-

"ing

reſt, a ſoft bed, long ſleep, tranquillity of mind, fat meat *, frequent meals, and as plentiful as he can well digeſt, and by keeping the belly gently bound.

FAT perſons ſhould be made thinner by warm bathing †, ſtrong exerciſe, hard beds, little ſleep, proper evacuations, acids, and one meal in a day.

" ing until he fell into a profuſe ſweat: I then had him " rubbed hard, and put into a warm bath; after which I " ordered him a ſmall breakfaſt, and ſent him to the warm " bath a ſecond time: ſome hours after, I permitted him " to eat freely of food, which afforded but little nouriſh- " ment; and, laſtly, ſet him to ſome work which he was " accuſtomed to for the remaining part of the day.

" On the other hand, a man that is too lean may be " made plump, 1. By ſuch food as will produce ſweet juices " and good nouriſhment. 2. By gentle exerciſe, which gives " a firmneſs to that nouriſhment. And, 3. By avoiding " heat, fatigue, and every violence that can diſſipate the " nouriſhment he has received." Galen. de ſanit. tuend. lib. 6. cap. 8.

* Fat meat, if a man can digeſt it well, will help to plump him up, otherwiſe it will do him no ſervice.

† For a ſhort and clear account of the magnificence, variety, uſe, and abuſe of baths among the ancients, ſee Mercurial. de re gymnaſt. lib. 1. cap. 10. and Petri Danetii dictionar. antiq. Rom. et Græc. ſub voce Balneæ. And among the moderns, eſpecially on cold bathing, ſee Drs Baynard, Floyer, Wainwright, and Lucas.

HOT

HOT conſtitutions are cooled by drinking water, and acid liquors; and the cold are warmed by the uſe of the fleſh-bruſh, by ſalt meat, and good wine.

THE dry are rendered moiſt by leſs exerciſe, and a fuller diet, eſpecially by drinking more than uſual; by cold bathing, and by reſting ſome time after their morning-exerciſe before they eat.

THE lax are made firmer by increaſing the uſual exerciſe; by making but one meal in a day, inſtead of the two they made before; by drinking little, and deferring that until they have done eating; and by ſitting ſtill for ſome time after meals.

THE coſtive, on the contrary, are relaxed by increaſing the quantity of food, by drinking large draughts at meals, and by uſing exerciſe ſoon after eating.

OLD people have greater reaſon to be cautious not to treſpaſs upon the rules of health, than young perſons, who have more ſtrength.

Of the SEASONS of the Year.

IN ſummer it is beſt to make ſmaller meals than in winter, but more frequent.—— The cold bath is alſo proper at that ſeaſon.

IN autumn, when the days begin to grow cold, we ſhould be careful not to go abroad in too light cloaths, or too thin ſhoes.

Of the habitual INFIRMITIES of different parts of the body.

THOSE whoſe heads are infirm, ſhould pour cold water upon them every morning; ſhould eat moderately of food eaſy to digeſt; ſhould make wine and water their common drink; that, in caſe the head, at any time, grows worſe than uſual, they may have recourſe to, and relief from water alone.

NOR

Nor will a weak head bear writing, reading, vehement ſpeaking, or intenſe thinking at any time, but eſpecially ſoon after meals.

Cold water is alſo good to waſh blear eyes, and to gargle ſore throats.

Thoſe who are ſubject to an habitual looſeneſs ſhould play at tennis, and accuſtom themſelves to ſuch ſorts of exerciſe as ſhake the trunk of the body. They ſhould alſo avoid a variety of diſhes at one meal, and ſhould deal very little in broths, greens, or ſmall ſweet wines; and ſhould ſit quiet for a conſiderable time after meals.

People ſubject to colics ſhould forbear to eat or drink any thing cold, and whatever they know by experience to be flatulent.

The ſymptoms of a weak ſtomach are, paleneſs, meagreneſs, loathing, frequent vomiting, and a headach, ſometimes when the

ſtomach is empty: and ſuch perſons ſhould always eat things of eaſy digeſtion, and drink the rougher ſorts of wine, if they can bear them, cold; and uſe alſo ſuch exerciſe as ſhakes the trunk of the body.

THOSE who are afflicted with the gout in their feet or hands, ought, between the fits, to give all the exerciſe they can bear, to the parts affected, in order to render them firm and hardy; but in the fits, reſt is neceſſary. Concubinage is a great enemy to gouty complaints.

UNDER every conſtitutional infirmity, it is proper to promote a good digeſtion; but to gouty people it is indiſpenſably neceſſary.

PLUTARCH.

PLUTARCH flouriſhed in the time of Trajan; and, though himſelf no phyſician, has compoſed an elegant dialogue on the preſervation of health; and has given us ſeveral uſeful obſervations upon that ſubject.

HE

He thinks it unbecoming a philoſopher, who is at great pains to make himſelf maſter of muſic and geometry, to be at the ſame time totally ignorant of what belongs to his own body.

At ſome of the high feſtivals in Athens, ſays he, beſides the entertainment exhibited to the public, there was alſo money diſtributed among the ſpectators, which made the pleaſure double. In like manner, phyſic *, which is quite as elegant, copious, and delightful as any of the liberal arts, has this advantage above them all, that it beſtows good health on thoſe who underſtand it, and will be directed by its precepts.

It is an obſervation of ſome importance to health, (tho' now and then diſregarded

* Plutarch happily reaped the benefit of his regard and application to this ſcience: for we are told by Dryden, in his life of this philoſopher, that "it was his prudence ſo to ma-"nage his health, by moderation of diet and bodily exerciſe, "as to preſerve his parts, without decay, to a great old age; "to be lively and vigorous to the laſt; and to preſerve him-"ſelf to his own enjoyments, and to the profit of mankind."

by phyſicians), That a coldneſs in the extreme parts of the body, which drives the natural heat inwards, ſhews a tendency to a feveriſh diſpoſition; and that we ought therefore to guard our limbs * well from cold at ſuch times, as we uſe no motion to throw the heat outwards.

ANOTHER obſervation is, That perſons in health ought ſometimes to taſte that ſimple and inſipid food, which alone is proper in time of ſickneſs; that ſo they may not be diſguſted at the ſight of it, nor, like froward children, ſet themſelves againſt it, when it becomes neceſſary: and for the ſame reaſon we ought to drink water ſometimes, tho' we have wine at hand; becauſe in ſome illneſſes

* If this obſervation of Plutarch was found uſeful in Greece and Italy, how much more in our colder climate? And I will venture to affirm, that perſons whoſe legs and feet are for the moſt part cold, cannot enjoy a good ſtate of health. And I will ſay farther, that woollen under ſtockings, worn by people of tender conſtitutions, to keep up, by their warmth, an equable circulation in the extreme parts, would prevent many a fit of pain, ſickneſs, and low ſpirits, which they muſt feel without ſuch a precaution.

it

it will be proper to drink water only. In ſhort, we ſhould diſcipline our minds ſo as to make them value that alone which is proper and conducive to health; and not think ourſelves undone when a ſimple or coarſe meal is ſet before us. It was wiſely ſaid by one of the ancients; "Chuſe that manner of "living which is moſt reaſonable, and cu- "ſtom will reconcile you to it."

A third obſervation is, That thin people are generally the moſt healthy: We ſhould not therefore indulge our appetites with delicacies or high living, (tho' we had it in our power), for fear of growing corpulent *. We may be ſometimes invited to the entertainments of great men, where cuſtom obliges us to do as others do, and where it is hardly poſſible to avoid exceſs: let us therefore be prepared for ſuch incidents, by having our bodies pure and healthy, leſt we ſhould

* Corpulency is not always the conſequence of high living; for in ſome conſtitutions it excites feveriſh diſorders, and various other complaints.

add

add load to load, or fewel to the fire; but even at ſuch entertainments, if we ſhould be preſſed to drink unreaſonably, we muſt refuſe to comply, tho' our refuſal ſhould give offence; and ſay with Creon,

Better to forfeit your eſteem to-day,
Than grieve you with my groans, or death to-morrow.

It was the advice of Socrates, "that we "ſhould beware of ſuch food as may tempt "us to eat when we are not hungry, and "of ſuch liquors as may entice us to drink "when we are not thirſty." Such, it is true, may be uſed when they become neceſſary to our nouriſhment, or health; but we muſt take great care never to let thoſe delicacies prevail with us to overcharge our ſtomach. The folly of thoſe is very great, who out of mere vanity load themſelves with dainties at great mens tables, that they may boaſt, among their friends, of thoſe high-priced rarities with which they were feaſted; whereas it would be much more to their honour, if they could ſay that they had ſuch a command of themſelves as to abſtain from them.

AMONG all the deſtructive follies of voluptuouſneſs, there is none more ridiculouſly extravagant than that of thoſe who pay high prices to celebrated whores, a Phryne or a Lais, while they neglect their wives at home, who have many more valuable charms than theſe mercenary wretches. How diſcreetly does the poet Menander introduce a pimp, leading in a train of beautiful proſtitutes, to inſnare a company of well-diſciplined young men; "at whoſe approach the youths hung "down their heads, eating the repaſt which "was ſet before them; nor would any of "them once look up at theſe bewitching "deſtroyers?"

THOSE who have a true taſte for pleaſure, ſhould, for the ſake of that pleaſure, live temperately; becauſe, without temperance, there can be no health, and without health we can reliſh no enjoyment. What avail the greateſt delicacies to a ſick ſtomach? Is not a good appetite the moſt exquiſite ſauce?

It

It is reported of Alexander the Great, when, upon a march, he turned away his cooks, that he ſhould ſay, "He carried much better cooks along with him than thoſe he "turned off, *viz.* a long morning's journey to whet his appetite to his dinner, "and a frugal dinner to make his ſupper "reliſh well."

I AM ſenſible, continues our author, that great fatigue, heat, and cold, ſometimes raiſe fevers; but we may alſo obſerve, that thoſe external cauſes rarely bring diſtempers upon ſuch as are temperate, and free from any redundancy of humours. It is this redundancy that throws the body into ſtubborn diſeaſes, juſt as ſtinking mud, agitated by external cauſes, taints the air, and every thing that comes near it. Hippocrates ſays, "That a ſpontaneous weight and laſſitude "of the limbs forebode a diſtemper approaching." And whence proceeds this weight, but from a plenitude which compreſſes the nerves? Unreaſonable, therefore,

fore, is the practice of them who think to remove this ſort of wearineſs, by eating and drinking plentifully; whereas abſtinence and exerciſe are the true cure of it.

THO' I cry down voluptuouſneſs, as a deſtroyer of true pleaſure, yet I do not recommend an over ſcrupulous and rigid abſtinence, which expoſes the body to many dangers, ſinks the ſpirits, and diſqualifies us for labour or pleaſure, by making us timorous, and perpetually ſuſpicious of ſome bad deſign againſt us; and never permits us to perform any action with true courage or magnanimity. We muſt keep a medium between theſe two extremes, and, like ſkilful mariners, neither ſhorten our ſails too much in fair weather, nor ſpread them too wide in a ſtorm.

AND as we muſt obſerve a moderation in diet, exerciſe, and pleaſure, ſo likewiſe our ſleep muſt neither be too long nor too ſhort; and even our dreams ſhould be natural and eaſy; for when we find them abſurd and frightful, we have reaſon to ſuſpect a fulneſs,

or ſome bad diſpoſition of the humours of our body. In the ſame manner when any ſudden cauſeleſs fear, or grief, or fretfulneſs ſeizes us, it is more than probable that ſome malignant vapour from our diſtempered bodies mingles with our ſpirits, and diſorders them.

It would be of great moment towards the preſervation of our health, if, when we viſit our friends under any illneſs, we ſhould, without an air of curioſity, or affectation of phyſical learning, kindly inquire what had done them hurt, whether fatigue, abſtinence, or any ſurfeit, had occaſioned their illneſs; that ſo we ourſelves may learn the neceſſity of temperance from the experience of others, and take care to avoid thoſe exceſſes which were the cauſe of their misfortunes.

Three things, ſays Plutarch, appear to me to be chiefly conducive to health, *viz.* exerciſe, temperance, and a thorough acquaintance with one's own conſtitution *.

* Tho' Plutarch borrows theſe rules from Hippocrates; yet, as he recommends each of them in a very entertaining manner, what he ſays may become more uſeful by being better remembered.

As to the exerciſe of men of letters, (whom he ſeems principally to regard), it is ſurpriſing to think what benefit they receive from reading aloud every day; we ought therefore to make that exerciſe familiar to us. What riding in an eaſy chariot is, compared with other exerciſes, the ſame is reading aloud, compared with dialogue or converſation. The voice moves gently upon the thoughts of another, and glides ſmoothly along without that vehemence which generally attends diſputations. But tho' reading aloud is a very healthful exerciſe, violent vociferation may prove pernicious, as it has been frequently the cauſe of burſting ſome blood-veſſel.

SOCRATES did not diſlike dancing when it was only for health, but ſaid, "it was ſo "far inconvenient as it took up too much "room; whereas, to a man who uſed the "exerciſe of ſinging, or reading aloud, a "chamber large enough to ſit in, was ſuffi-"cient." It is carefully to be obſerved, that this exerciſe of reading aloud, or any

other, muſt not be uſed immediately after repletion or fatigue; for ſuch an error has proved hurtful to many. Idleneſs and ſloth have always been looked upon as a plentiful ſource of diſtempers; and the man who thinks to procure himſelf health by indolence, is like him who, by continuing always ſilent, hopes to mend his voice. Beſides, the very end and aim of health, which is action, is deſtroyed by ſloth. What is his health good for, who never does any thing to help himſelf or his friends?

Some have recommended walking after ſupper; others, imagining that motion diſturbed digeſtion, thought reſt preferable. The rational views of both may be obtained, by giving reſt indeed to our bodies, but by entertaining our minds with chearful converſation, which will neither fatigue the ſpirits through cloſe attention, nor occaſion inconveniencies of any kind; ſuch as thoſe agreeable and amuſing queſtions in natural philoſophy, hiſtory, or poetry, which ſome call the

the *deſſert* at the entertainments of men of letters. And thus we ſhall conform ourſelves to the advice of the phyſicians, who deſire that ſome ſpace of time may intervene between ſupper and bed, to prevent crudities.

The ſecond thing highly conducive to health, is temperance in eating and drinking, and in all other gratifications of our ſenſes. For my part, I think it were better to accuſtom ourſelves, from our youth, to ſuch temperance as not to require any fleſh meat at all. Does not the earth yield abundance, not only for nouriſhment, but for luxury? Some of which may be eat as nature has produced them, and ſome dreſſed and made palatable a thouſand ways. But ſince cuſtom has made it almoſt natural to us now to eat fleſh, we may eat it indeed, but moderately, and not gorge ourſelves with it like lions and wolves.

The moſt noble of all liquors is wine; the moſt uſeful drink; the moſt palatable medicine; and, of all delicacies, the moſt grateful

to

to the ſtomach. But if we ſhould happen to be ſcorched by heat, fatigued with buſineſs, exhauſted with intenſe thinking, or ſeized with any feveriſh diſorder, a glaſs of warm water only, or mixed with but little wine, will refreſh us more than wine alone; which having a natural activity and heat, is apt to exaſperate our diſorder; whereas it is our buſineſs to mitigate ſuch complaints, by the ſoftneſs and coolneſs of the water.

The third thing neceſſary to health, is, to be ſo well acquainted with our own conſtitution, as to know perfectly what agrees or diſagrees with us. It is reported of the Emperor Tiberius, that he ſaid "it was ſhame-"ful for any man paſt threeſcore, to reach "his hand to a phyſician to feel his pulſe." This was a peeviſh expreſſion: but ſtill I think it reaſonable, that a man ſhould have ſome knowledge of his own pulſe, becauſe there is ſuch a variety in pulſes; and ſhould be acquainted with his own temper of body, with reſpect to heat or cold; and ſhould obſerve from experience what agrees with him,

and

and what does not; for that ſoul, in my opinion, muſt be careleſs which has dwelt ſo long in a body, and yet is obliged to aſk a phyſician, whether that body is healthieſt in ſummer or in winter? whether moiſt or dry food is beſt for it? and whether the pulſation in the wriſt be quick or ſlow? People have learned to give directions to their cooks how they ſhould prepare their food, but do not trouble themſelves to know whether that food be wholeſome or not; and provided their taſte be gratified, health is quite out of the queſtion. Theſe are not the dictates of reaſon, eſpecially when we conſider the importance of health; and that this acquaintance with our own conſtitution is eaſily acquired by a little attention and care.

THREE errors which are very common among men I heartily wiſh reformed. One is, that of taking ſtrong purges or vomits to carry off the redundancy of their ſhameful intemperance, and the complaints which it brings upon them. He who takes a rough purge to relieve his body from too great a

load

load of food or humours, behaves himſelf like an inhabitant of Athens, who, finding the multitude of citizens troubleſome to him, ſhould contrive to drive them out, by filling the city with Scythians and wild Arabs. Inſtead of theſe violent drugs, therefore, which corrupt the body, he ſhould, without any preparation, directly puke up his load, or live abſtemiouſly for a few days.

ANOTHER error is committed when people bind themſelves down to certain ſtated rules of abſtinence, or think it expedient to faſt on certain periodical days; imagining, without reaſon, that ſuch a formal reſtraint will contribute to their health. Theſe puniſh themſelves, without any neceſſity, by adhering to uſeleſs rules, which make their whole lives uncomfortable. A man under ſuch bondage lives altogether for himſelf; and rather reſembles a ſhell-fiſh, which remains fixed to its rock, than a rational creature who has any commerce with the world, or would be uſeful to mankind.

A THIRD error which ſtudious men are apt to fall into is not leſs dangerous: they read and meditate inceſſantly, without allowing proper relaxation or refreſhment to the body; and think that a frail machine can bear fatigue, as well as an immortal ſpirit. This puts me in mind of what happened to the camel in the fable; which refuſing, tho' often premoniſhed, to eaſe the ox in due time of a part of his load, was forced at laſt to carry, not only the ox's whole load, but the ox himſelf alſo, when he died under his burthen. Thus it happens to the mind which has no compaſſion on the body, and will not liſten to its complaints, nor give it any reſt until ſome bad diſtemper compels the mind to lay ſtudy and contemplation aſide; and to lie down, with the afflicted body, upon the bed of languiſhing and pain. Moſt reaſonably, therefore, does Plato admoniſh us to take the ſame care of our bodies as of our minds; that, like a well-matched pair of horſes to a chariot, each may

draw his equal ſhare of weight. And when the mind is moſt buſy in the contemplation of virtue, the body ſhould then be cheriſhed with the greateſt care, that ſo it may give no obſtruction in ſuch a noble purſuit.

Of AGATHINUS.

AGATHINUS was contemporary with Plutarch: he practiſed phyſic at Rome, and is mentioned in ſeveral places by Galen *. We have his thoughts concerning the cold bath, among the collections of Oribaſius †; and as this author is full and clear, with regard to the practical part of cold bathing, which, when uſed with the neceſſary precautions, may be very ſubſervient to the preſervation of health, it will be proper to know the ſentiments of this ancient phyſician upon ſo intereſting a ſubject; eſpecially as his directions will ſuperſede the trouble of conſulting others upon the ſame article.

* In lib. 1. Hipp. de morb. vulg. comment. 2. ſect. 25. et de different. pulſ. lib. 4. cap. 10. et 11.

† Medicin. collect. lib. 10. cap. 7.

"THOSE

" THOSE who deſire to paſs through this " tranſitory life with health, (ſays he), ſhould " bathe themſelves frequently in cold water. " I can ſcarce find words to expreſs the be- " nefit which people receive from this prac- " tice; and even in extreme old age, cold " bathing, to ſuch as have been habituated " to it, will render the body firm, and the " countenance lively; will ſtrengthen the " appetite, aſſiſt concoction, preſerve the " ſenſes entire; and, in a word, will give " vigour to the whole animal œconomy."

I have been told, continues our author, that it is a common cuſtom among the barbarous nations, to dip their infants daily in cold water; but we parboil our children with warm ablutions, perſuaded thereto by our nurſes, becauſe, forſooth, the infants go to ſleep ſoon after the fatigue of being waſhed in warm water, and reſt pretty well in the night; but the conſequence is, that children ſodden in this manner, frequently fall into convulſions and epilepſies, very difficult to be removed.

OUR aliment ſhould be thoroughly digeſted and diſtributed, or, in other words, the ſtomach ſhould be empty, and the body light, when we go into the cold bath. We ſhould alſo walk a while, or uſe ſome other gentle exerciſe, to give us a moderate warmth and alacrity of ſpirit, immediately before we enter; but we muſt by no means heat or fatigue ourſelves at that time. The ears ſhould be cloſely ſtopped to prevent the cold water from getting into them. When we are ready, we ought to plunge inſtantly in the water, or have it poured upon us; but the former is beſt. Such as have ſtrength and reſolution to bear it, may dip their whole bodies over head a ſecond or third time under water; but whether they dip once or oftener, they ſhould be always exceedingly well dried and rubbed when they come out. The water ſhould neither be of an icy coldneſs, nor of too remiſs a degree, but ought to be always pure and bright. Sea-water is beſt, eſpecially for the firſt trials.

SOME think, that thoſe who are not accuſtomed to the uſe of the cold bath, ought not to begin it before the middle of ſummer: "but I have ſeen many begin with great "ſafety at all times of the year; it is never-"theleſs my own opinion, (ſays our au-"thor), that the ſpring is preferable to any "other ſeaſon for the commencement of "this practice."

CHAP. VIII.

Of Galen,——and ſuch of his rules as were but ſlightly touched upon before his time.

CLAUDIUS GALENUS was born at Pergamus, a city in the Leſſer Aſia, about the year of our Lord 131. He wrote ſix books concerning the preſervation of health, and ſeveral other tracts about the qualities and nature of aliments, and the difference of temperaments; from all which I ſhall extract the moſt material rules, that have not been recommended by others before him, without

without entering into his ſcholaſtic diſputes, or unneceſſary digreſſions, too frequent in his writings. But let not the faſhionable pedantry of the times in which he lived, give us a mean opinion of this great man, whoſe penetrating genius, extenſive knowledge, and juſt conceptions both of the works and author * of nature, have been the admiration of ages.

He adviſes his readers, for their own ſake, to perſiſt with ſpirit and reſolution in learning and practiſing thoſe rules which conduce to the preſervation of health; aſſuring them, for their encouragement, that by ſo doing they may preſerve their bodies to extreme old age, free from all ſorts of diſtempers. "I was born (continues he) with an infirm "conſtitution, and afflicted in my youth "with many and ſevere illneſſes; but ſince

* Uſum partium demonſtrando, "ego conditoris noſtri "verum hymnum compono. Hoc autem omne inveniſſe, "quo pacto omnia potiſſimum adornarentur, ſummæ ſapien-"tiæ eſt: effeciſſe autem omnino quæ voluit, virtutis eſt "invictæ ac inſuperabilis. Quodque nihil ſuis beneficiis pri-"vatum eſſe voluerit, id perfectiſſimæ bonitatis ſpecimen eſſe "ſtatuo." De uſu part. lib. 3. cap. 10. claſſ. 1. verſ. vulg.

" I arrived to the twenty-eighth year of my
" age, and knew that there were ſure rules
" for preſerving health, I have obſerved
" them ſo carefully, that I have laboured
" under no diſtemper ſince that time, ex-
" cept now and then a fever for one day *,
" which my fatigue, in attending the ſick,
" neceſſarily brought upon me. A man
" whoſe body is clear from every noxious
" humour that can hurt it, is in no danger
" of contracting any illneſs, except from ex-
" ternal violence, or infection. And why
" may not proper care be taken to keep the
" body clear from all ſuch noxious hu-
" mours?"

In order to adapt his rules to perſons under all circumſtances, Galen divides mankind into three general claſſes. In the firſt he reckons thoſe who are naturally ſound and ſtrong, and at liberty, from their affluence, to beſtow what time and care they pleaſe on their health. In the ſecond, he places ſuch

* De ſan. tuend. lib. 5. cap. 1.

as

as are of a delicate and infirm conſtitution. And his third claſs contains thoſe whoſe neceſſary occupations, in public or private life, will not permit them to eat, ſleep, or uſe exerciſe at regular hours.

As to the firſt, he ſays, that to preſerve life and health, as long as is conſiſtent with the lot of man, it is neceſſary that the original ſtamina ſhould be good; for ſome are ſo crazy, "that Æſculapius * himſelf could "ſcarce prolong their lives to threeſcore." This claſs he divides into four periods, *viz.* infancy, youth, manhood, and old age. Two of theſe periods, namely, infancy and old age, had been touched upon but ſlightly before his time. But as to youth and manhood, (whether of robuſt or tender conſtitutions), the general rules eſtabliſhed by Hippocrates and others for preſerving health, are, for the moſt part, the ſame which Ga-

* Sunt enim, qui ab ipſo ortu adeo improſpero corporis ſunt ſtatu, ut ne, ſi Æſculapium quidem ipſum iis præfeceris, vel ſexageſimum annum videant. De ſan. tuend. lib. 1. cap. 12. Thoma Linacro Anglo interprete.

len

len alſo recommends, and therefore need not be repeated here.

To be brief, there are four articles, with regard to the preſervation of health, which Galen has conſidered more attentively than any that went before him, *viz.* 1. Infancy. 2. Old age. 3. The difference of temperaments. And, 4. The care neceſſary to be taken by thoſe whoſe time is not in their own power. I ſhall therefore endeavour to give a clear and ſuccinct view of his precepts concerning theſe articles, in the order here ſet down.

Article I. Of Infancy.

Children newly born ſhould, if poſſible, be fed with their mother's milk, which is much more natural to them than that of a ſtranger. The nurſes ſhould give them a good deal of exerciſe, both in the cradle and in their arms; and ſhould be extremely diligent to find out what makes the infants uneaſy when they cry, and, by their unuſual

agitation, appear to be in pain, leſt theſe agonies ſhould throw them into fits, or into a fever. "I attended a child (ſays our author) who cried inceſſantly; whom neither motion, muſic, nor the breaſts, could pacify for one moment; and, upon ſtrict ſearch, found, that the bed in which he lay, his cloaths, and body, were all naſty: but the inſtant he was waſhed, and clean dreſſed, he fell into a ſweet ſleep, which continued ſeveral hours." Infants ought to be fed with milk only, until they have cut their fore-teeth, and then accuſtomed by degrees to a more ſolid food, as bread and other light ſorts of aliment, with which nurſes are well acquainted. They ſhould alſo be waſhed every morning with tepid water, and then well rubbed and dried; the nurſe obſerving, for this purpoſe, the time when the child's ſtomach is empty after a long ſleep; for they do hurt, who waſh and rub infants upon a full ſtomach. Galen finds great fault *, and ſeems quite out of humour

* De ſanit. tuend. lib. 1. cap. 10.

with

with the northern cuſtom of plunging new-born infants into cold water, and diſdainfully ſays, "that he does not write for Ger-"mans, or ſuch barbarians, any more than "he would write for bears and lions;" and yet he recommends, to his polite Greeks and Romans, a more uncouth and painful practice, of rubbing their tender infants all over with ſalt *, in order to render them healthy and hardy. But time and experience have every where aboliſhed the practice of ſalting; and, to the great benefit of infants, have, in many places and families, eſtabliſhed the uſe of the cold bath under proper reſtrictions †, which may be ſeen at the bottom of the page.

In

* Ergo recens natus infantulus, cujus corporis conſtitutio omni noſota vacat, primum quidem faſciis deligetur, ſed corpori prius toti ſale modice inſperſo, quo cutis ejus denſior ſolidiorque reddatur.——Ita vero qui ſecundum naturam ſunt infantes, vel ſolo ſale præparati munitique abunde fuerint: quando, qui ſiccorum myrti foliorum aut aliorum id genus inſperſione egent, iis plane vitioſus ſtatus ſit. De ſan. tuend. lib. 1. cap. 7.

† The cold bath, by ſtrengthening the ſolids, and promoting a free perſpiration, gives livelineſs, warmth, and vigour to infants, highly conducive to prevent rickets, broken bellies, ſcrophulous diſorders, and coughs, to which they are ex-

In juſtice, however, to our author, I muſt take notice, that he is rarely guilty of any miſtake in practice; and tho' his theory has been much mended in after ages, yet his practical obſervations are to this day very va-

tremely obnoxious in ſome countries. And nature ſeems to have pointed out this remedy, both to the ancient and new world. Virgil informs us, that it was a cuſtom in Italy, long before the Roman times, to dip their new-born infants in the coldeſt ſtreams.

Durum a ſtirpe genus. Natos ad flumina primum
Deferimus, ſævoque gelu duramus et undis.

Æn. lib. 9. lin. 603.

And Sir William Pen, in his letter to Dr Bainard, (hiſt. of cold bath. part 2. pag. 291.), has the following words. "I am aſſured, that the American Indians waſh their young "infants in cold ſtreams, as ſoon as born, in all ſeaſons of "the year."

With regard to infants of a ſtrong conſtitution, there can be no objection to the uſe of cold bathing, eſpecially if (to avoid a ſudden tranſition from the warmth in which the fœtus was formed to an oppoſite extreme) parents would defer it to the next ſummer after the child is born. But to guard againſt any poſſibility of danger to the infant from this daily and quick immerſion of the whole body, let the nurſe obſerve whether he becomes warm and lively immediately upon his being taken out of the water, or ſoon after he is rubbed dry and dreſſed; if ſo, the cold water will undoubtedly prove of ſervice to him: but if, on the contrary, the child becomes chilly and pale, and eſpecially if any of his limbs ſhould be contracted or benumbed with the cold, and continue ſo for ſome time after he is rubbed dry and dreſſed, the uſe of the bath muſt be intermitted for a few days, and tried again when the child is briſker; or, in caſe the ſame ſymptoms ſhould return, it muſt be quite laid aſide.

luable.

luable. He proceeds in his directions, and ſays, great care ſhould be taken of the nurſe's diet, exerciſe, and ſleep, that ſo her milk may be good. That milk is good which is perfectly ſweet, white, and of a due conſiſtence, neither too thick, nor too thin; but bad milk is ſomewhat bitter or ſalt, of an improper conſiſtence and colour, and of a diſagreeable odour. The nurſe muſt not go near her huſband while ſhe gives ſuck, and ſhould immediately be diſmiſſed if ſhe is with child. Infants ſhould not taſte wine, becauſe it heats the body, and hurts the head; beſides, they do not want any, and therefore feel not the benefit, but only the hurt it does.

A PURE air is alſo neceſſary for children, not ſuch as is permitted to ſtagnate in a cloſe room; nor ſuch as is loaded with the ſteams of ſtanding waters, the filth of great cities with exhalations from dead animals, or rotten herbage. The ſame method of living may be obſerved in the ſecond ſeptennial period, as in the latter part of the firſt; with

with this farther care, that the child be then taught to uſe moderate exerciſe, but not too violent, leſt it ſhould ſtint * his growth. *That* is alſo the proper ſeaſon to form his mind rightly, by teaching him the rudiments of uſeful knowledge, and by habituating him to that modeſty, and obedience, which will afterwards contribute greatly to the preſervation of his health.

Art. II. Of Old Age.

Old age, which may be called a natural diſtemper, or a middle ſtate between health and ſickneſs, is commonly dry and cold: for tho' the eyes, noſe, and mouth, often run with water; and tho' a cough and ſpitting generally attend old people; yet theſe are all excrementitious humours, and not a nouriſhing uſeful moiſture. This coldneſs and drineſs ſhould be relieved with a little wine, and ſuch food as is proper to moiſten and warm them. Chafing alſo, or rubbing with the

* This opinion requires farther confirmation from experience.

fleſh-

fleſh-bruſh, is good for them, as it increaſes the motion of the blood, excites a gentle heat, and thereby helps to diſtribute an equal nouriſhment to all parts of the body. After rubbing, it will be convenient for them to walk or ride in ſome vehicle, but not ſo far to fatigue themſelves with either; for too much exerciſe makes them meagre, whereas moderate exerciſe keeps up their fleſh. It is a rule not to be neglected, That old perſons ſhould perſiſt in the uſe of ſuch exerciſes as they have been moſt accuſtomed to; for theſe are not only leſs fatiguing, but alſo more entertaining and agreeable to them. Nor is it ſafe for them abruptly to ſubſtitute a new exerciſe in the place of an old one; for experience has taught us, that much walking has been hurtful to thoſe who could bear riding * extremely well: and if any part of our body ſhould happen to be more infirm than the reſt, great care is to be taken that our exerciſe do not overfatigue the weak part;

* He means riding in a chariot, and not on horſeback.

but

but let it be ſo contrived, that the ſtronger parts ſhall have motion enough, and the weaker parts ſhall receive no damage. If, for inſtance, a man is ſubject to a giddineſs, he ought not to uſe any exerciſe in which he muſt bend his head often, or turn round; but rather chuſe to walk gently forward, or ride in ſome eaſy vehicle, without fatiguing himſelf. Or if a man's legs be weak, riding in a chariot will do him much more ſervice than walking.

Old people ſhould avoid every ſort of food that produces thick and gluey juices, as unfermented bread, cheeſe, pork, beef, eels, and oyſters; and likewiſe every thing that is hard to digeſt. Their bread ſhould be mixed with a due proportion of ſalt, and yeſt or leaven; ſhould be well kneaded; and thoroughly baked; otherwiſe it will occaſion obſtructions in the liver, ſpleen, and kidneys.

In caſe an old man ſhould continue two whole days coſtive, he ought on the third to take ſome very gentle thing to open his bo-

dy,

dy, ſuch as he knows by experience to anſwer that purpoſe; nor ſhould he continue the ſame opening food or medicine always, but change it now and then for ſomewhat elſe, leſt, by becoming habitual, it ſhould loſe its effect.

He ſhould alſo indulge himſelf in ſleeping as long as will be ſufficient to cheriſh and refreſh him.

" Antiochus the phyſician, when he " was above fourſcore years old, walked " from his houſe three ſtadia * to the fo- " rum, where the principal citizens of " Rome met every day, and in his road vi- " ſited ſuch patients as lay near him. If he " had farther to go, he took a chair †, or " ſome other vehicle. He had a ſmall room " in his houſe, warmed with a ſtove in win- " ter, and temperate in ſummer, in which " his body was well chafed and rubbed, af- " ter going to ſtool every morning. In the

* Near half a mile. De ſanit. tuend. lib. 5. cap. 4.

† Partim geſtatus in ſella, partim vehiculo vehebatur. Ibid.

" forum, about nine or ten o'clock, he eat
" ſome bread and boiled honey, and ſtayed
" there talking or reading to twelve. He
" then uſed ſome gentle exerciſe before din-
" ner, which was very moderate, beginning
" always with ſomething that was opening.
" His ſupper was either ſome light ſpoon-
" meat, or a fowl with the broth in which
" it was boiled. And thus he lived, with
" all his ſenſes perfect, and all his limbs
" ſound, to extreme old age.

" TELEPHUS the grammarian lived to al-
" moſt an hundred years. His breakfaſt
" was pure honey from the comb, mixed
" with gruel. He dined always on ſallad,
" or ſome fiſh or fowl; and for ſupper he
" only eat a little bread, with a glaſs of wine
" and water."

AN old man's own experience muſt de-
termine, whether a milk-diet be proper for
him or not, ſince it is ſurpriſing to ſee what
different effects it has on different conſtitu-
tions. " I knew a huſbandman (ſays Ga-
" len)

" len) above an hundred years old, whoſe
" principal food was goats milk, with which
" he mixed ſometimes bread, and ſometimes
" honey; and now and then he eat it boil-
" ed with tops of thyme. A neighbour of his,
" imagining that milk was the cauſe of the
" old man's long life, would try it in imita-
" tion of him; but could never bear it in any
" form; for it lay heavy on his ſtomach,
" and ſoon raiſed a ſwelling in his left ſide.
" Another making the ſame experiment,
" found milk agree with him perfectly well,
" till after the ſeventh day of trial, when he
" felt a hard tumour in his right ſide, which
" occaſioned a tenſion, with ſpaſms, quite up
" to his throat. I have alſo known ſome,
" who, from a long uſe of milk, had contract-
" ed a ſtone in the kidneys, and ſome who
" loſt their teeth, while others have lived up-
" on it many years in good health." The benefits which ariſe from milk to thoſe with whom it agrees, are, to keep the body gently open; to produce ſweet juices; and good fleſh; eſpecially when the milk comes from

a paſture full of mild and wholeſome herbs; for the milk cannot be good, where the herbs are too acrid, too acid, or too aſtringent. The animal alſo which gives the milk, ſhould be quite healthy, and in the flower of her age. And I ſhould adviſe people to drink aſſes milk and goats milk alternately; becauſe goats milk is the moſt nouriſhing, and aſſes milk, being thinner, is eaſieſt of digeſtion.

That wine is beſt for old people which is ſtrong and diuretic. It ſhould be ſtrong, in order to diffuſe a proper heat over their cold limbs; and diuretic, to carry off any ſuperfluous ſeroſities, which, by remaining in the body, might become injurious to their health. They ſhould therefore chuſe their wine of a light thin body, becauſe ſuch is commonly diuretic; and of a pale or yellow colour, becauſe ſuch is the ſtrongeſt; but they ſhould abſtain from thick, black, or aſtringent wines, becauſe they are apt to cauſe obſtructions in the bowels. Nor indeed is ſweet wine good for old men, unleſs they are

very

very lean, and, upon that account, require rich wines to nouriſh them; but then they ſhould be of the generous, pale, or yellow kind.

Art. III. Of different Temperaments, Complexions, and Constitutions.

We may reckon nine different temperaments of the human body; of which four are ſimple, the hot, the cold, the moiſt, and the dry; four mixed, the hot and moiſt, the hot and dry, the cold and moiſt, the cold and dry; and one which keeps a medium between all extremes, and may therefore be called the good or healthy temperament. The ſimple temperaments are eaſily known by the ſight and touch. Among the mixed or compound, thoſe which deſerve the greateſt regard in practice, and are moſt eaſily diſtinguiſhed by their reſpective marks, are, the hot and dry, and the cold and moiſt. Theſe being directly oppoſite in their natures, require each a very different management.

The moſt common marks of a hot and dry

dry temperament are, large turgid veins; a ſtrong pulſe; a broad breaſt and ſhoulders; a robuſt, muſcular, well-proportioned body and limbs; black, thick, curling hair; and a rough, brown, hairy ſkin.

On the contrary, a ſoft, white, ſmooth ſkin; fair hair; a narrow cheſt; ſmall veins; a delicate body, generally plump; weak, ill-ſhaped limbs; and a feeble pulſe; denote a cold and moiſt complexion.

As we daily obſerve mens temperaments differ ſo widely, that what does good to one frequently does hurt to another, it is aſtoniſhing that any phyſician ſhould attempt to preſcribe rules for health, without taking notice of this difference; for as one ſhoe will not fit every foot, ſo neither will the ſame manner of living agree with all men. Nor can we pronounce univerſally of any aliment, that it is wholeſome or unwholeſome, becauſe what agrees well with one has been known to make another ſick. "Two of my ac-
"quaintance (continues he) had a warm diſ-
"pute about honey; one maintained, that it
"was

" was unwholeſome, the other affirmed the
" contrary, and both pleaded experience,
" without conſidering their reſpective tem-
" peraments; the one being a phlegmatic
" old man, who lived a ſedentary life, with
" whom honey muſt agree, as it is of a
" warming penetrating nature; the other a
" young man, about thirty, of a hot bilious
" temperament, to whom conſequently ho-
" ney muſt be hurtful."

SOME recommend exerciſe promiſcuouſly for every perſon; others pretend that reſt does as well. Some preſcribe wine, others water; but experience teaches us, that the ſame thing has often contrary effects on different perſons. " I knew ſome men, who, if
" they abſtained three days from labour, were
" ſure to be ill; others I was acquainted with,
" who enjoyed a good ſtate of health, tho'
" they uſed little or no exerciſe. Primigenes
" of Mitylene was obliged to go into a warm
" bath every day, otherwiſe he was ſeized with
" a fever." Effects we learn from experience,

but

but the cauſe of thoſe effects we learn from reaſon and reflection. Why did Primigenes require ſuch frequent bathing? "I found, "by the burning heat of his body, by his "ſtudious life, and by his never ſweating, "that he wanted a free perſpiration; but his "ſkin being thick and hard, and ſtopping "this perſpiration, he required a warm bath "to mollify his ſkin, and open his pores. I "knew another whoſe temperament was e-"qually hot, but did not require bathing ſo "frequently; becauſe, by his trade of walking "much about the city to buy and ſell ſeve-"ral things, and by being of a quarrelſome "diſpoſition, and fighting frequently, he "kept himſelf, for the moſt part, in a ſweat, "which prevented a fever. A third perſon "of a hot and dry conſtitution, I was obli-"ged to reſtrain from exerciſe, becauſe he "uſed it to exceſs; and herein I followed "the rule of Hippocrates, who ſays, that "hot temperaments ſhould rather indulge "reſt than uſe too much exerciſe. On the "other hand, I have reſtored health to ſe-

"veral

" veral perſons of a cold temperament, by " rouſing them from a lazy life, and by " perſuading them to labour." It is plain therefore that different degrees of exerciſe and different ſorts of food are neceſſary to different complexions. Thoſe reſpective differences are, indeed, to be inveſtigated by the underſtanding, but experience muſt always confirm our reaſoning.

It muſt be farther obſerved, that beſides preſcribing a warm bath, and the moſt gentle exerciſe to hot and dry temperaments, it is alſo neceſſary that their food ſhould produce ſweet juices without any acrimony; that water ſhould be their principal drink; that they ſhould avoid anger; too much ſtudy; and the ſcorching heat of the ſun. And as the heat of a temperament commonly proceeds from a redundancy of bile, we ſhould diligently inquire whether this bile is apt to go off by ſtool? If it does, we need not be very ſollicitous about the conſequences of it, for nature will do her own work; but if it re-

but the cauſe of thoſe effects we learn from reaſon and reflection. Why did Primigenes require ſuch frequent bathing? "I found, "by the burning heat of his body, by his "ſtudious life, and by his never ſweating, "that he wanted a free perſpiration; but his "ſkin being thick and hard, and ſtopping "this perſpiration, he required a warm bath "to mollify his ſkin, and open his pores. I "knew another whoſe temperament was e-"qually hot, but did not require bathing ſo "frequently; becauſe, by his trade of walking "much about the city to buy and ſell ſeve-"ral things, and by being of a quarrelſome "diſpoſition, and fighting frequently, he "kept himſelf, for the moſt part, in a ſweat, "which prevented a fever. A third perſon "of a hot and dry conſtitution, I was obli-"ged to reſtrain from exerciſe, becauſe he "uſed it to exceſs; and herein I followed "the rule of Hippocrates, who ſays, that "hot temperaments ſhould rather indulge "reſt than uſe too much exerciſe. On the "other hand, I have reſtored health to ſe-

"veral

" veral perſons of a cold temperament, by " rouſing them from a lazy life, and by " perſuading them to labour." It is plain therefore that different degrees of exerciſe and different ſorts of food are neceſſary to different complexions. Thoſe reſpective differences are, indeed, to be inveſtigated by the underſtanding, but experience muſt always confirm our reaſoning.

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turns upwards, it muſt be evacuated by a very gentle puke.

All the phyſicians and philoſophers who have treated on the elements of the body with any accuracy, have condemned the dry temperament, as being of itſelf a ſort of old age, and have praiſed the moiſt as the fitteſt to prolong life, and preſerve health and vigour to extreme old age. A moiſt temperament is indeed inconvenient in infancy, but afterward becomes the moſt healthful of all the temperaments that run into any exceſs. Thoſe therefore who preſide over health, ſhould guard againſt ſuch things as dry and waſte the body too much, but ſtill without running into the contrary extreme; and this juſt medium is preſerved by a prudent uſe of exerciſe and bathing, by keeping the natural evacuations within their proper bounds; and eſpecially by ſuch food as will ſupply good juices, and by a moderate uſe of wine.

Art. IV. Of thoſe whoſe Time is not in their own Power.

To ſtateſmen, and ſtudents, whoſe employments engroſs too much of their time, Galen preſcribes the three following rules. Firſt, that after any extraordinary attendance or meditation, they ſhould live more abſtemiouſly than uſual; and affirms of himſelf, "that when at any time he was fatigued "and ſpent with buſineſs, he choſe the moſt "ſimple food he could think of, which was "commonly bread alone:" And tho' he does not propoſe this rigorous abſtinence as a model for others, yet he inſiſts upon it, that after great fatigue, people's food ſhould be light and of eaſy digeſtion. His ſecond rule is, that their common diet ſhould be plain and ſimple, and ſuch as they can eaſily digeſt. And his third rule directs them to ſet apart ſome portion of their time for exerciſe every day, (whatever their engagements may be) or if that be impoſſible, to loſe a little blood ſometimes to prevent a plethora, and to take now and then ſome gentle phyſic to

purge

purge their bowels from the corrupted humours accumulated there by indigeſtion, without which precautions, they muſt of neceſſity fall into bad diſtempers. He alſo adviſes ſuch inferior ſervants as are tied down to a ſedentary inactive life, to take the opportunity of feſtival days to relieve their bowels from corrupted humours by gentle purging. But alas! adds he, ſo great is the intemperance of the vulgar, that inſtead of employing thoſe idle days in procuring health or any other good to themſelves, they, on the contrary, indulge their appetites to the utmoſt, whenever they have any opportunity of doing it, and thereby accumulate bad humours, which afterward break out in rheumatiſm, gravel, or ſome other diſtemper, which afflicts them for the remaining part of their lives.

I SHALL conclude Galen's precepts concerning health, with the following excellent advice which he gives to his readers: "I "beſeech all perſons, ſays he, who ſhall read "this treatiſe, not to degrade themſelves to

" a level with the brutes, or the rabble, by
" gratifying their ſloth, or by eating and
" drinking promiſcuouſly whatever pleaſes
" their palates; or by indulging their appe-
" tites of every kind. But whether they
" underſtand phyſic or not, let them con-
" ſult their reaſon, and obſerve what agrees,
" and what diſagrees with them, that, like
" wiſe men, they may adhere to the uſe of
" ſuch things as conduce to their health,
" and forbear every thing which, by their
" own experience, they find to do them
" hurt; and let them be aſſured, that by a
" diligent obſervation and practice of this
" rule, they may enjoy a good ſhare of
" health, and ſeldom ſtand in need of phy-
" ſic or phyſicians."

CHAP.

CHAP. IX.

Of Porphyry, and those who condemn the use of animal food.

PORPHYRY of Tyre, who lived about the middle of the third century, and was a favourite Disciple of Plotinus the Platonist, endeavours, in his celebrated book *concerning abstinence from animal food*, to revive the primeval simplicity of diet; and exclaims violently against the use of flesh meat.

HE addresses his book to Firmus Castricius, who had relinquished the Pythagorean abstinence, and tells him, "You owned, "when you lived among us, that a vege- "table diet was preferable to animal food, "both for preserving health, and for facili- "tating the study of philosophy; and now "since you have eat flesh, your own expe- "rience must convince you, that what you "then confessed was true." It was not from those who lived on vegetables, that

robbers

robbers * or murtherers, ſycophants or tyrants, have proceeded, but from fleſh eaters. The neceſſaries of life are few, ſays he, and eaſily acquired, without violating juſtice, liberty, health, or peace of mind; whereas luxury obliges thoſe vulgar ſouls, who take delight in it, to covet riches, to give up their liberty, to ſell juſtice, to miſpend their time, to ruin their health, and to renounce the joy of an upright conſcience. "In order to re-
"cover our health, and remove diſtempers,
"do we not patiently ſubmit to inciſions,
"to cauſticks, and to nauſeous potions, be-
"ſides rewarding thoſe who preſcribe them:
"And ſhall we give ourſelves no trouble to
"remove diſtempers from our minds which
"are immortal?"

He takes great pains to perſwade men of the truth of the two following propoſitions: *Firſt*, That a conqueſt over the appetites and paſſions will greatly contribute to preſerve

* This is an aſſertion at random, without any proof, nor indeed is it poſſible to prove it.

health,

health, and to remove diſtempers. *Secondly*, That a ſimple vegetable food being eaſily procured, and eaſily digeſted, is a mighty help toward obtaining this conqueſt over ourſelves.

To prove the firſt propoſition, he appeals to experience, and aſſerts, that ſome of his own companions, who had been tormented with the gout * in their feet and hands to ſuch a degree, that they were under a neceſſity of being carried about from place to place for eight years ſucceſſively, were perfectly cured by diſengaging themſelves from the care of amaſſing riches; and by turning their thoughts to ſpiritual objects; ſo that together with their anxiety for wealth, their bodily diſtempers ſoon left them. In confirmation of the ſecond propoſition he argues in the following manner: "Give me

* If his companions had brought the gout upon themſelves by high and riotous living, (which is very probable) a low, vegetable, milky diet, perſiſted in, might be of ſervice to them; which is no proof, that a total abſtinence from animal food is either neceſſary or expedient to prevent diſtempers.

" a man who conſiders ſeriouſly, what he
" is, whence he came, and whither he
" muſt go; and from theſe conſiderations,
" reſolves not to be led aſtray, or govern-
" ed by his paſſions. And let ſuch a man
" tell me whether a rich animal diet is
" more eaſily procured, or incites leſs to
" irregular paſſions and appetites, than a
" light vegetable diet? But if neither he,
" nor a phyſician, nor, indeed, any reaſo-
" nable man whatſoever, dares to affirm
" this; why do we oppreſs ourſelves with
" animal food? And why do we not, to-
" gether with luxury and fleſh meat,
" throw off the incumbrances and ſnares
" which attend them."

THUS declaims the philoſopher Porphyry, who might and ought to have informed himſelf better, by reading *Galen's treatiſe on the nature of aliments*, which would have eaſily convinced him that a mixture of animal food with the vegetable kind, is more proper for the healthy, more ſtrengthening for the infirm, and more eaſily di-

geſted, than a ſimple diet of vegetables only. And, indeed, all that our philoſopher has advanced on this head, ſavours more of the rant of an enthuſiaſt, or the mortification of a hermit, than of phyſical knowledge, or juſt reaſoning; and yet there have been multitudes of the ſame opinion with him.

THE ridiculous notion of the tranſmigration of ſouls, and ſome other unaccountable fancies, have induced ſeveral ſects of philoſophers, and their admirers, to abſtain from animal food, as far back as Pythagoras, and down * to this day.

THE grave Plutarch has written two diſcourſes in favour of this abſtinence, tho' it is matter of fact that he himſelf eat fleſh, like other people. But as it would be of

* "All the Pagans in the Eaſt Indies hold the tranſmigra-
"tion of ſouls. Tho' they all profeſs one religion, yet they
"are divided into eighty-four ſects or tribes, each of which
"has its peculiar rites. The firſt and principal tribe is that
"of the Brachmans, which is divided into ten ſeveral ſects:
"The firſt five feed on herbs and grain, without ever eating
"any thing that has life; in which they are imitated by the
"whole tribe of the Banians." See doctor John Francis
"Gemelli's voyage.

litt

little uſe toward the preſervation of health, to give a long hiſtorical detail of what has been advanced upon this head, I ſhall only take notice of our learned countryman doctor Cheyne, who in ſome meaſure adopted the ſame notions, and blended them with his rules of health. To underſtand the latter writings of this *ingenious* and *whimſical* author, we muſt carefully diſtinguiſh the MYSTIC from the PHYSICIAN. In his myſtical character, he thus declaims: "I am * almoſt convinced that the fleſh "of animals was not intended, in the ori- "ginal deſign of the creator, for food to "the human race, but only permitted as "a curſe or puniſhment, to let them feel "the natural effects of their concupiſcence, "by painful diſtempers, which ſhould give "them a diſlike to the luſt that produced "theſe pains, and make them return to "the love of virtue and of God."

* Diſcourſe 2. pag. 54, 55. I ſhorten his declamation.

BUT

But when in his character of a phyſician he inquires into facts, and calmly conſiders the reaſons alledged for giving the preference to vegetable aliment in general, this conſideration ſtaggers him; and he is forced to acknowledge, that * "ſeveral "ſorts of vegetables, and ſubſtances pre-"pared from them, as onions, muſtard, "nuts, pickles, ſpices, aromatics, and e-"ſpecially fermented liquors, are more in-"flaming, and deleterious than ſome mild "animal ſubſtances."

If, therefore, animals were not originally intended for human food, and yet there are ſome vegetables in common uſe more pampering and inflaming in their nature than ſeveral animal ſubſtances, how ſhall we moderate the difference between theſe oppoſite opinions, and reconcile the *Myſtic* with the *Phyſician?*

The *experienced Phyſician* prevails at laſt over the *enthuſiaſtic Philoſopher* to abate of

* Diſcourſe 2. pag. 75.

his

his rigour, and to accommodate differences, by the following friendly compromiſe: *viz.* "That for bodily * ſtrength, animal "food, and fermented liquors are fitteſt, if "moderately uſed; but for intellectual exercises, vegetable food, and unfermented "liquors ſeem appropriated; and that "conſequently the beſt way to ſecure "the golden mediocrity between bodily "ſtrength and ſpiritual vigour, is for the "healthy to confine themſelves to about a "pound, or at leaſt half a pound of animal food, and a pint, at leaſt half a "pint of fermented liquors daily; but "for the valetudinary and ſtudious to ſink "below this medium in both theſe, till "by experience and obſervation they find "what quantity of either they are eaſieſt "under; and to ſtick to that, ſhould it be "even to deſcend totally into vegetables, "milk and unfermented liquors."

But notwithſtanding the ſingularities of this learned writer, we find, among his

* Diſcourſe 2. pag. 88.

aphoriſms

aphoriſms relating to health, ſome which deſerve our attention, and have not hitherto been mentioned: Of theſe the four following are the principal.

1. He that would * be ſoon well, muſt be long ſick, that is, treat himſelf as a valetudinarian in moſt things. Aph. 8.

2. Riding on horſeback is the beſt exerciſe to recover loſt health; and walking, the beſt to preſerve good health. Aph. 25.

3. Good hours will be always a moſt beneficial means to preſerve health and ſpirits; to go to bed by ten, and riſe by ſix. Aph. 30.

4. Vomits often and properly repeated, are the ſole univerſal antidote and panacea of Britain; an ailing perſon cannot repeat them too often, (provided his conſtitution can bear them) and they will always prove beneficial and ſalutary †.

* Pract. eſſay on the regim. of diet. pag. 60. et ſeq.

† He means that gentle pukes, frequently repeated, are by experience found uſeful in curing hypochondriacal or nervous diſorders produced by high living.

CHAP.

CHAP. X.

Of Oribaſius, Aetius, and Paulus Ægineta on health.—Of Actuarius and others, as Friar Bacon and Lord Verulam, who imagined that health might be preſerved, and life prolonged by antidotes and panaceas.

ORIBASIUS, and the ſucceeding Greek phyſicians who wrote concerning health, have done little more than copy Galen; but I muſt obſerve to the honour of Oribaſius, that he was the firſt of the Greek phyſicians* who can properly be ſaid to

* Oribaſius was indeed the firſt phyſician who expreſly recommended riding on horſeback for the ſake of health; but it muſt be allowed that he took the hint from Galen, of whom it may be juſtly ſaid, that as he learned a great deal from Hippocrates, ſo himſelf became a copious ſource of knowledge to ſucceeding phyſicians. It was the opinion of Plato, that "exerciſe performed by one's own body, as walking, running, or playing at ball, was preferable to paſſive exerciſe "in any vehicle, as riding in a chariot, or ſailing." Galen having taken notice of theſe two ſorts, ſays, (De ſanit. tuend. lib. 2. cap. 11.) that "riding on horſeback is a mixt kind "of exerciſe, partaking of each;" the horſe performing the part of a vehicle, and the rider performing the active part of bodily exerciſe, by exerting himſelf in the management of his horſe,

to have recommended the exercise of riding on horseback toward the preservation or recovery of health; for he declares, in express terms, that "it strengthens * the "stomach above all other sorts of exer- "cise, that it clears the organs, and "makes all the senses more acute."

AETIUS wrote about the end of the fifth century. He is somewhat more particular than Galen in the care of infants †,

horse, and in keeping his seat. And when we consider, that in those days they knew not the use of stirrups, we must allow such bodily exercise to have been then rougher than now: This, I think, was hint sufficient, to induce Oribasius, who copied Galen, to recommend riding on horseback.

But after all, there is nothing more certain than that riding on horseback was reckoned a healthful exercise many ages before Oribasius or Galen. For Xenophon in his oeconomics (lib. 2. sect. 3.) introduces Ischomachus telling Socrates, that "he rode on horseback to see his servants in the country "ploughing, sowing, and planting; adding farther, that he "rode over all sorts of roads, by way of exercise." Which conduct Socrates approves in the following words: "Your "exercise, by Juno, pleases me much, which gives you, at "the same time, τὴν ὑγιείαν καὶ τὴν ῥώμην, both health and "strength of body."

* Medic. collect. lib. 6. cap. 24.

† Tetrabibl. 1. serm. 4.

and

and choice of nurſes; but takes moſt of his other rules of health from him.

PAULUS ÆGINETA, who, acccording to the learned and accurate doctor Friend, lived about the year 621, beſtows his whole firſt book *de re medica* upon the ſubject of health, but has ſcarce ſaid any thing new.

THE laſt of the Greeks who has touched upon the preſervation of health is Actuarius. He lived in the thirteenth century, and practiſed phyſic with a good deal of reputation at Conſtantinople. He treats of health in a curſory manner in the third book of his method of cure; but ſeems to depend more on the efficacy of particular antidotes to preſerve health, than on any general rules. To give an inſtance of this with regard to the antidote which he calls *health*. He affirms*, that any man who takes the quantity of a lentil of this medicine every day, will never be ſeized with any illneſs all his life; and ſays that it will

* Method. medend. lib. 5. cap. 6.

remove inflammations of all ſorts, and will alſo *drive away witches and evil ſpirits.* Thoſe who are feveriſh ſhould take it in water, and thoſe who are not feveriſh, in wine.

THE ingredients of this wonderful compoſition are rue, pepper, myrrh, ſaffron, cinnamon, ſpikenard, euphorbium, mandrakes, poppies, and twenty ſimples more, all made up with honey.

IT is true that this infatuation, of depending upon particular medicines to ſecure health, prevailed in the world many ages before Actuarius, and has continued down to our days; but he ſeems to be the firſt phyſician of any reputation, whoſe credulity on this head was unbounded.

HOMER mentions* the *Φάρμακον Νηπενθὲς*, or "Egyptian cordial, which com-
"municated the higheſt joy to thoſe who
"took it, and baniſhed every ſort of me-
"lancholy."

* Νηπενθὲς τ' ἄλαχόν τε, κακῶν ἐπίληθον ἁπάντων. Odyſſ. lib 1. lin. 221.

PLINY deſcribes a plant, "very like let-
"tuce, called *Dodecatheon*, or *the twelve*
"*Gods*, which, infuſed in water, was ſaid
"to cure all diſtempers*. And a ſort of
"Piony, called *Panacea*, from its all-heal-
"ing virtues."

IN the time of Herophilus, ſome com-poſitions had the pompous appellation of *the hands of the Gods* beſtowed upon them; and Galen's remark upon them is good, *viz.* "Herophilus ‡ ſpoke truth, when he
"ſaid that theſe compoſitions, conſidered
"in themſelves, were of no value; or
"might do miſchief, if he who preſcribed
"them was ignorant; but when admini-
"ſtered properly by a prudent and expe-
"rienced phyſician, they might be called
"*the hands of the Gods*, from their utility."

THIS method of depending upon parti-cular *noſtrums*, was a ſhorter and eaſier road

* Lib. 25. cap. 4.

‡ De comp. medicam. local. lib. 6. cap. 3.

to health, than the rules of Hippocrates and Galen, which required *temperance and exerciſe*; and had it proved effectual, all the world would readily have gone into it; but it was found, after many trials, to be attended with perpetual diſappointments. Such, however, is the weakneſs of the human mind, that among the moſt ingenious men, which *this*, or *any nation* produced, ſome were deceived into a belief of *univerſal Panaceas*, endowed with virtues ſufficient to keep off diſtempers to extreme old age; and others, extending their views ſtill farther, propoſed, by a proper uſe of a few choſen remedies, to protract the life of man beyond the common limits aſſigned to it by nature, which ſeem to have been nearly the ſame from the days of the Pſalmiſt* down to ours.

FROM a multitude of Noſtrum-mongers, that might be quoted here, I ſhall ſelect Friar Bacon and lord Verulam, to ſhew how ſhort ſighted man is; for who can

* Pſalm xc. 10.

be ſecure from falling, if two ſuch great geniuſes could ſtumble?

FRIAR BACON, in his larger work, dedicated to Pope Clement IV. ſays, that the reaſon why the life of man is much ſhorter now than it was in the beginning of the world, is, "becauſe people have neglect-"ed, in all ages, to obſerve a proper re-"gimen for the preſervation of health. "This neglect has been univerſal, the phy-"ſicians have been careleſs. In youth "health is never thought on. One perhaps "among three thouſand, may think of it "when he grows old, hoping, too late, to "ſtop death from coming in, when he is "juſt at the door. But is there no way of "remedying this evil which men's igno-"rance and negligence have brought upon "them? Has nature no ſecret, which art "may find out, to procure health and "long life? Yes. There have been men, "who, by their reſearches into the ſe-"crets of nature, have diſcovered anti-"dotes to ward off old age. And the

"good

" good experiment-maker*, in his book " concerning the proper regimen† of old " people, gives an enigmatical deſcription " of a certain compoſition, which when " rightly underſtood, retards, for many " years, the advances of old age:" *viz.* You muſt take that which is temperate in the fourth degree. That which ſwims in the ſea. That which vegetates in the air. That which is caſt out by the ſea. That which is found in the bowels of a long lived animal. A plant of India: And two creeping things which are the food of Tyrians and Egyptians. And let them all be properly prepared. This *riddle* Bacon explains in the following manner: That which is temperate in the fourth degree is *gold*, chymically prepared. What ſwims in the ſea is *pearl*. The flower of *roſemary* grows by virtue of the air. *Sperma-ceti* is thrown out by the ſea. The *bone* found

* Peter de Maharn-court a Picard, whom Bacon calls dominus experimentorum.

† This book I could find no where.

in

in a ſtag's heart is taken out of the bowels of a long lived animal. The Indian plant is *lignum aloes*. And the creeping things are *ſerpents*, of which the fleſh muſt be properly prepared. This antidote, ſays Bacon, "prevents the corruption of any "conſtitution, and the infirmities of age "for many years."

But alas! In ſpite of this antidote, his friend pope Clement died ſoon after, and left him to the mercy of his old enemy pope Nicolas, who impriſoned him for a long time at Paris. And poor Bacon, who deſerved a better fate, after a great deal of bad uſage from an ignorant and ſuperſtitious world, died at Oxford in the ſeventy-eighth year of his age, A. D. 1294, leaving us a convincing proof of the vanity of ſecrets, even in the beſt hands.

The great lord Verulam, after ridiculing * the complaint of Hippocrates, that "life was ſhort, and the healing art te-"dious." And after juſtly ſtigmatizing †

* Pag. 1. † Pag. 194. et ſeq. hiſt. vit. et mort.

the

the vain and extravagant encomiums beſtowed upon chymical ſecrets, and celebrated antidotes, which at firſt flatter and at laſt deceive, he himſelf propoſes a method *to prolong life*, which, upon a fair trial, will be found equally fallacious with the boaſted preparations of the chymiſts.

THE two great cauſes * of death, ſays he, are firſt "the internal ſpirit, which "like a gentle flame, waſtes the body: "And ſecondly, the external air that dries "and exhauſts it; which two cauſes con-"ſpiring together, deſtroy our organs, "and render them unfit to carry on the "functions of life:" But this waſte and depredation committed by the *internal Spirit*, may be repaired, firſt, by making the ſubſtance of it more denſe, through a regular courſe of *opiates* taken in ſmall doſes, and at certain times; and ſecondly, by

* Cauſa periodi eſt, quod ſpiritus inſtar flammæ levis perpetuo deprædatorius; et cum hoc conſpirans aër, qui etiam corpora fugit, et arefacit officinam corporis; et organa perdat, et inhabilia reddat ad munus reparationis.

moderating

moderating its heat, which may be done, ſays he, by a proper uſe of nitre.

He owns, indeed, with a generous frankneſs, that "his manner* of life did not "permit him to make the neceſſary experiments upon theſe medicaments," which is much to be lamented, for without repeated experiments it will be utterly impoſſible to eſtabliſh opinions of this nature; and he who conſiders that *opium* is found by experience to weaken the nerves, and that *nitre* cools to a great degree, will ſcarce think theſe drugs proper for old age, when warmth and vigour are wanted.

Our author treating alſo of *air*, which he reckons the other great cauſe of premature death, recommends *chalybeate baths*, and *greaſy unctions*, to exclude it; but being aware that this would ſtop the perſpiration, and occaſion diſtempers, he orders glyſters

* Diſertè profitemur nonnulla ex iis quæ proponimus experimento nobis non eſſe probata, neque enim hoc patitur noſtrum vitæ genus. Hiſt. vit. et. mort. pag. 203.

and purges, as a ſuccedaneum, to carry off the redundant humours; which method would not anſwer very well in practice.

Upon the whole, our noble author diſcourſes here not ſo much like a phyſician, as a profound philoſopher, whoſe univerſal knowledge and ſublime genius prompted him to control the common appearances of nature, and to ſtretch, if poſſible, the human life beyond its uſual period. But it is remarkable, that tho' this great man took three grains of his favourite *nitre* every morning for the laſt thirty years of his life, he died nevertheleſs in the ſixty-ſixth year of his age.

His general precepts concerning long life are much more valuable; *viz.* Firſt, that a frequent remembrance of the entertainments of youth chears and enlivens old people to a great degree. And here he obſerves, that the emperor Veſpaſian could not be prevailed upon to alter his father's dwelling-

dwelling-houſe, tho' very incommodious, leſt he ſhould forget how he had paſſed his youth there; and that on feſtivals he drank out of his grand-mother's wooden cup edged with ſilver.

In his ſecond precept he adviſes men to ſpend their youth and manhood in ſuch a prudent manner as will enable them to retire from the fatigue of buſineſs when they grow old, and employ their time in ſuch contemplations, amuſements, and rural recreations of building and planting, as will give entertainment to their minds, and vigour to their bodies.

His third rule directs to take particular care that the ſtomach, *the father of the family*, be always kept in good order; to which nothing contributes more than, now and then, to take a little ſomething that will open the body gently, without giving it any diſturbance.

His fourth rule is, that once every two years, thoſe who begin to grow old ſhould alter

alter their whole juices ‡, and make themſelves very lean, by a courſe of diet-drinks and abſtinence, in order to ſweeten their blood and renew their youth.

CHAP. XI.

Of the Arabian phyſic. —— Its commencement. —Of Rhaſes and Avicenna concerning health. ——Return of phyſic from Arabia to Europe. ——Of the Tacuin or Elluchaſem Elimithar.

THE ſcience of phyſic having paſſed from the Greeks to the Arabians and Perſians, we muſt follow it thither, and inquire what improvements they have made in our ſubject of the preſervation of health.

Two accidents principally contributed to carry the Grecian phyſic into the eaſtern

‡ Boerhaave, in a great meaſure, adopts this rule, and ſays, "Mutationes fere radicales humorum per reſolventia, horum "dein excretiones ſuccedentes —— ſæpe diſponunt corpus "—— ad vitam longam." Vid. inſtit. med. ſect. 1059. 1062. But more of this hereafter.

parts of Aſia. One was the marriage of Sapores * king of Perſia to the daughter of the emperor Aurelian, who, in compliment to her, ſent thither ſeveral Greek phyſicians, by whom the Hippocratical medicine was propagated in that country, probably at Nibur the capital of Choraſan, built by the ſame Sapores, A. D. 272; and hence it was (as the learned doctor Friend conjectures) that moſt of the celebrated profeſſors in phyſic, Rhaſes, Hally-Abbas, and Avicenna, were educated in thoſe parts.

THE ſecond accident was the taking of Alexandria by the Saracens, A. D. 642. For tho' the famous library there was deſtroyed, it is probable that the writings of the old Greek phyſicians might be ſpared, merely (as our ingenious hiſtorian † obſerves) becauſe they treated of phyſic; the deſire of health being as ſtrong in the Arabians as in other people.

* Friend's hiſt. of phyſic, part 2. pag. 10.

† Hiſt. of phyſic, part 2. pag. 4.

RHASES was the firſt Arabian I know of, who has given general rules of health. He was born in Perſia, and was called to Bagdat when he was thirty years old, where he was afterwards choſen, out of a hundred eminent phyſicians, to take care of the celebrated hoſpital in that city. And there he died at the age of fourſcore, A. D. 932. He was alſo phyſician to Almanzor lord of Choraſan, to whom he dedicated ſeveral of his writings; and, among the reſt, *a treatiſe on the preſervation of health.*

IN this treatiſe he has exhibited a plain and uſeful ſummary of ſeveral important rules of health, which (tho' moſtly borrowed from the Greeks) deſerves to be ſet, in one view, before the reader, as follows:

1. HEALTH is preſerved by a juſt meaſure of exerciſe and the other *Non-naturals*; and alſo by the cleanlineſs of the place in which we live; and by a perſeverance in the uſe of ſuch things as we have been long accuſtomed

accuſtomed to, unleſs our cuſtoms have been bad, in which caſe we ought to depart from them, not abruptly, but by ſlow and regular degrees.

2. EXERCISE ſhould be uſed when a man's ſtomach is empty; and ſhould be left off at the moment he finds it begin to grow tireſome and uneaſy to him.

3. A man ought not to poſtpone his meal when a ſound and natural appetite prompts him to eat; but ſhould never eat ſo much as to overload his ſtomach, or ſtraiten his breath.

4. He who loaths his food, ſhould faſt for ſome time, or take a gentle doſe of phyſic.

5. No liquor is equal to good wine.

6. A man who eats much, and uſes little exerciſe, ſhould frequently take ſome eaſy purge.

7. IF a man finds any uncommon change in himſelf for ſome days, that is, if he ſleeps, ſweats,

ſweats, or otherwiſe diſcharges more or leſs than uſual, he ſhould inquire into the cauſe of that alteration, and remove it before it can produce any bad effect.

8. CHEARFULNESS adds to one's ſtrength and ſpirits, but grief impairs both.

9. A meagre man ſhould avoid frequent concubinage, as he would an aſſaſſin. But it is one of the beſt cures for thoſe who are deſperately in love, and will often make them forget the beloved object.

10. GENTLE phyſic is better, generally ſpeaking, for old people than bleeding; and good wine mixt with water, their beſt drink. Their exerciſe ſhould be ſuch as is pleaſant to them, and proportioned to their ſtrength; their food ſhould be of eaſy digeſtion; and their ſleep long.

AVICENNA was born at Bochara in Perſia, A. D. 964. and died in the fifty-eighth year of his age. The fame of his work

work called the *Canon* prevailed ſo much, not only in Aſia, but alſo in Europe, that there was ſcarce any other doctrine taught in the ſchools of phyſic before the reſtoration of learning, about the cloſe of the fifteenth century. I have read with care all that he ſays concerning the preſervation of health, both in his canon, and in his book* of *rectifying the errors committed in the uſe of the ſix things* neceſſary to man's life, and have found nothing in either that deſerves the extravagant encomiums beſtowed upon the author. He has principally copied Galen's rules of health, but has given them ſuch a quaint conceited dreſs and air by his refinements † and ſubtilties, that it is not eaſy

* De removendis nocumentis quæ accidunt in regimine ſanitatis, ex errore uſus rerum non-naturalium.

† Ars cuſtodiendi vitam illa eſt, quæ corpus humanum perducit ad hanc ætatem quæ vocatur terminus vitæ naturalis, ſecundum obſervationem convenientium et neceſſariarum rerum, quæ ſunt ſeptem: Æqualitas complexionis. Electio eorum quæ comeduntur et bibuntur. Purgatio ſuperfluitatum. Rectificatio ejus quod per nares attrahitur. Rectificatio indumentorum de ſummâ tangentium. Moderamen motionum corporearum et animalium, inter quas ſunt ſomnus et vigilia. Ex libro canonis doctrin. 1. dictionis tertiæ.

to underſtand them. His own additions may be reduced to the few following, *viz.*

1. A man in a paſſion ought not to eat food that is of a heating nature; and one under terror ſhould not eat things too cooling.

2. ONE ſhould be more abſtemious on the days he takes phyſic than at other times.

3. NO man ſhould go to ſleep immediately after bleeding.

4. AFTER faſting long at ſea, or in times of famine at land, people ſhould eat ſparingly, and come to make full meals by ſlow degrees, otherwiſe they will deſtroy themſelves, as it happened in the city of Bochara, where thoſe who had lived on roots and herbs in time of the famine, when they came to have bread and fleſh in abundance, filled themſelves greedily and died.

5. TENDER habits of body receive great benefit from bathing in chalybeate waters.

SOME rules he recommends, which, among us, would be thought ſomewhat awkward and troubleſome. I ſhall mention but two.

1. WHEN a perſon is much fatigued after a long journey, let ſome milch animal be milked upon his head, and let him go to ſleep.

2. WHEN a man is obliged to travel into a far country, let him carry along with him ſome *earth* of his own country, to be mixt with the foreign water which he is to drink. This native earth well ſtirred in, and then ſtanding to ſettle, will mend the noxious qualities of the foreign water, and prevent any bad effects from it. "It ſhould be obſerved, indeed, that the Arabians were "the more obliged to be careful about "their water, becauſe their religion did "not permit them to drink wine."

HAVING thus taken notice of the introduction of the Greek phyſic into Perſia and Arabia,

Arabia, and having ſeen the rules of health recommended by two of their principal phyſicians; we muſt now purſue this art back again from Arabia into the weſtern parts of Europe, whither it was brought by means of the Croiſade, and by the Moors ſettled, during the eighth century, in Spain, where they eſtabliſhed hoſpitals at Seville and Corduba.

THE truth is, phyſic was very low in Europe from this time to the cloſe of the fifteenth century, when, after the taking of Conſtantinople* by the Turks, many of the Greeks retired into Italy, and carried their ancient manuſcripts with them. Theſe ſtrangers, encouraged by ſome generous patrons of learning, eſpecially by the Great Dukes of Tuſcany, ſet the faculty upon underſtanding and explaining the Greek phyſicians, and examining how far the Arabians had followed or deviated from them; which laudable reſearches opened the way (tho' ſlowly) to farther improvements.

* It was taken in May 1453.

THE

THE first performance concerning the preſervation of health that appeared in this ignorant period, was the *Tacuin* or *tables of health*, compoſed by two Jew phyſicians, at the deſire of Charles the great, and publiſhed under the name of *Eluchaſem Elimithar*. This book is rarely to be met with, except in public libraries, which is no great loſs, being but a mean, perplexed, whimſical performance*, and ſcarce worth taking notice of, but only becauſe it happens to be ſometimes quoted by the learned.

THESE tables, by their diviſions and ſubdiviſions, rather confound than edify the reader, as will appear by the words† of the author, cited at the bottom of the page.

CHAP.

* P. Daniel, in his hiſtory of France, ſays that Charlemagne had a great averſion to all phyſical regimens, which we need not wonder at, when we are told that the authors of the Tacuin were his phyſicians. His words are, "Il avoit une "horreur extreme de tous les regimes de médecine, qui alloit "preſque juſqu'a ne pouvoir ſoufrir la preſence d'un méde-"cin." Tom. 1. pag. 557. edit. Paris.

† Cum Dei auxilio compono tabulas continentes cibos et potus, et alias res neceſſarias circa ipſos, ad hoc quod ſit compendioſum

CHAP. XII.

Of the Schola Salernitana and others, who wrote on the preſervation of health in verſe.

NEXT to the Tacuin comes the Schola Salernitana, written about the end of the eleventh century, for the uſe of Robert Duke of Normandy, ſon to William the conqueror, who in his return from the holy war conſulted the phyſicians of Salerno about a wound he had received in his arm, which became fiſtulous. This poem was probably intended to direct him in the care of his health when he ſhould have no phyſician at hand to adviſe with, and continued in high eſteem for a long

pendioſum regibus et dominis conſpicere in ipſis; et dividam tabulas per domos. In prima domo ponam numerum; in 2da nomen; In 3tia naturam; in 4ta gradum; in 5ta melius illius ſpeciei; in 6ta juvamentum; in 7ma nocumentum; in 8va remotionem nocumenti; in 9na humorem qui generatur ex ea, et conſequenter, in aliis quatuor domibus, convenientias ejus ſecundum complexiones, ætates, tempora anni, et naturas regionum. In domo 14ta opiniones hominum in ea. In 15ta electiones et proprietates. Deinde faciam canones univerſales in genere illius de quo loquimur: Et in rubrica primi marginis juxta quod dixerunt Aſtrologi de illo.

time

time after *, in ſo much, that about the fourteenth century Arnoldus de Villa Nova could not recommend himſelf more effectually to Frederic king of Sicily and Naples, and to his ſubjects, than by writing a commentary upon it. Nor can we wonder at their partiality in favour of this Gothic compoſition, when we conſider the time in which it was produced. This book, in ſome editions †, bears the title of *The flower of phyſic.*

Of the ſix articles neceſſary to human life, the Schola Salerni dwells principally upon aliment, but touches alſo upon the reſt in a curſory manner.

The advice ‡ to perſons of a ſtudious and ſedentary life, that they ſhould accuſtom themſelves to light ſuppers, ſeems very rational. And, perhaps, the moſt cu-

* Doctor Friend tells us that Benj. de Tudela a Jew, upon his return from his travels over the greateſt part of the known world, A. D. 1165, commends Salernum for the beſt ſeminary of phyſic among the ſons of Edom, i. e. the chriſtians.

† Hoc opus optatur quod flos medicinæ vocatur.

‡ Ex magna cœna ſtomacho ſit maxima pœna,
Ut ſis nocte levis, ſit tibi cœna brevis. Cap. 5. lin. 1.

rious

rious part of the whole poetical compoſition is the deſcription there given of the four complexions, *viz.* ſanguine, choleric, phlegmatic, and melancholic, and the marks by which the prevalence of each may be diſtinguiſhed. Perſons of a ſanguine complexion, ſays this author, are plump, ruddy, chearful, generous, brave and benevolent. The choleric are thin, dry, yellow, wrathful, bold and impetuous. The phlegmatic are pale, fat, ſlothful, feeble, and ſtupid. And the melancholic are ſallow, ſilent, wakeful, timorous, cunning, and tenacious.

But upon the whole, if we read this poem without the notes and amendments of Villa Nova, and others who have honoured it with their explanations, we can hardly forbear aſſenting to the truth of the character given it by Lommius *, of being *a rude and illiterate performance.*

* Minus placet quod fieri hodie a multis video, verſiculos aliquot inconditos, ſcholamque ſequentibus Salernitanam, quæ vix ſcio, an quicquam in literis medicorum inelegantius ſit, aut indoctius. Lom. comment. in Celſi librum prim. de ſan. tuend. epiſt. nuncupatoriâ.

JOHN of Milan, Author of the *Schola Salernitana*, having been the firſt who preſcribed rules of health in verſe, it will be proper to ſubjoin here ſuch other phyſicians as have treated the ſame ſubject in a poetical manner, that we may place them in one view, tho' they lived in different ages; and indeed the trouble of comparing them will not be great, for they are but few.

THE ſecond is Caſtor Durante, who writes with much more elegance * and judgment than his predeceſſor. He was a citizen

* He begins with a conciſe and lively deſcription of the air which a man ſhould chuſe to live in:

Si cupis incolumem vitam producere, cælum
Effuge corruptum nebulis, nidore, lacunis;
Quodque movet madidus morboſis Africus auris.
Purum ama, et ad ſolem naſcentem, et lumine apricum,
Purgatumque Euro, et Boreali frigore terſum.

But I muſt obſerve upon the whole, that it is dangerous to preſcribe rules in verſe on ſuch a delicate ſubject as health, becauſe the muſe may now and then raiſe the *Poet* above the reach of ſalutary precepts, and make him forget the *Phyſician*. To give an inſtance of this, Durantes enumerating, after Hippocrates, the qualities of good water, ſays,

Sic aqua clara fluat, qualis nitidiſſimus aër,
Dulcis, et exigui ponderis, et gelida;

citizen of Rome, and phyſician to pope Sixtus Quintus, to whom he dedicates his poem, upon which he himſelf, for the benefit of one of the court ladies, wrote a commentary in Italian, entituled *Il Teſoro della ſanità*.

In this treaſure of health, he gives, from Hippocrates and Galen, a clear and ſuccinct account of the common rules to be obſerved with reſpect to the ſix things neceſſary to human life; and adds, here and there, a remark of his own, adapted to the place in which he lived. He recommends, for example, ſinging * of

Et tenuis currat, nullo puriſſima limo,
Sitque ſapor nullus, ſit procul omnis odor.
Frigeſcat breviter, modico ſimul igne caleſcat
Utilis, et duris apta leguminibus.
Hanc mihi ſi quis aquam dederit vinoſa, valete
Pocula, nam vincit optima lympha merum.

Thus the *Phyſician*; but the *Poet* recollecting perhaps, that *nec vivere carmina poſſunt quæ ſcribuntur aquæ potoribus*, preſently ſubjoins,

Vina bibant homines, animalia cætera fontes:
Abſit ab humano pectore potus aquæ.

* Il cantare i ſalmi, et attendere all' iſtorie theologiche dilettando all' animo, lo paſcono in modo, che tutte le virtù diventano piu forti a reſiſtere all' infermita, et a ſuperarle.

pſalms,

pſalms, and reading of pious hiſtories, to chear and elevate the mind, and enable it to reſiſt and overcome the infirmities of the body. He is ſufficiently prolix, in his poem, on the different ſorts of aliment in common uſe; where, among other things, he recommends rats *, frogs †, and hedgehogs ‡.

But of all the poetical performances on this ſubject, that have come to my hands, doctor Armſtrong's *Art of preſerving health* is by far the beſt. To quote every charming deſcription, and beautiful paſſage of this poem, one muſt tranſcribe the whole. We cannot however expect new rules, where the principal deſign was to rouſe and warm the heart into a compliance with the ſolid precepts of the antients, which he has enforced with great ſtrength and e-

* Nil juvat umbroſi latitare cubilibus antri.
Glis tibi, vita et mors hic tibi ſomnus erit. Pag. 216.

† Ranarum alba caro, ſed ſemper durior eſca. Pag. 282.

‡ Utere Echino hilaris, ſtomachum fovet, ilia mollit. Pag. 222. editionis Bonibell. Venet. an. 1596.

legance.

legance. And upon the whole, he has convinced us by his own example, that we ought not to blame antiquity for acknowledging,

One power of phyſic, melody, and ſong.

CHAP. XIII.

Of Marſilius Ficinus and others, who joined aſtrology with phyſic, in order to preſerve health.—Mention is alſo made of Platina Cremonenſis.

BUT to return to plain proſe: Some* learned Greeks were ſent for, and entertained by the illuſtrious family of the Medici and others, who taught their language and learning to ſeveral perſons in Florence and Venice, before the Turks took poſſeſſion of Conſtantinople in the 1453. But many more† retired after the taking of that city, and carried their

* Particularly Joannes Argyropilus and Emanuel Chryſoloras.

† As Theodore Gaza, Laſcaris, &c.

Greek

Greek manuſcripts with them into Italy, where they ſoon ſpread the Grecian literature among a people eager to receive and ſtudy it. Among other ſciences that began to revive in the Weſt from this calamity of the Greeks, phyſic raiſed her languid head, but could not, for a long time clear herſelf from the follies of aſtrology, ſuperſtition, and witchcraft, with which ſhe had been corrupted, ſince her departure from antient Greece.

MARSILIUS FICINUS, the tranſlator of Plato's works, was the firſt phyſician, after the revival of learning in the weſtern parts of Europe, who wrote concerning health. He was born in Florence, and educated in the family of the great Coſmo de Medicis, who appointed him preceptor to his ſons, and beſtowed a handſome eſtate upon him. Among his other voluminous works he publiſhed a treatiſe concerning health and long life: And in his dedication to Laurentius, grandſon of Coſmus, he calls Galen the phyſician of the body,

and

and Plato the phyſician of the ſoul; and in his book mixes a great deal of the ſubtilties of Plato and Plotinus, with ſome uſeful rules copied moſtly from Galen. To theſe, however, he adds ſeveral ſenſeleſs and ſuperſtitious precepts of his own, that ſtill ſhew the darkneſs of the age in which he lived.

1. He admoniſhes people, for inſtance, to conſult a good aſtrologer* at every ſeptennial period of their lives, and when they ſhall learn from him the dangers which hang over their heads, they may then go to the phyſician to prevent thoſe dangers.

2. He recommends the internal uſe of gold‡, frankincenſe, and myrrh, to old people, in imitation of the wiſe men who

* Tu igitur, ſi vitam producere cupis ad ſenectutem, quoties ſeptimo cuilibet propinquas anno, conſule diligenter aſtrologum: unde immineat tibi diſcrimen, ediſcito; deinde vel adito medicum, vel prudentiam. De ſtudioſ. vit. producend. cap. 20.

‡ Sicut magi thus, aurum, et myrrham, tria dona, pro tribus planetarum dominis, Jove ſciz. Sole, et Saturno, ſtellarum domino obtulerunt, ita ſenes accipiant eadem vitalia dona. De vit. ſtud. producend. cap. 11.

offered

offered theſe three to the creator of the ſtars, in order to obtain from him the benign influence of the three lords of the planets, *viz.* Sol, Jupiter and Saturn.

In * the laſt place, he moſt abſurdly adviſes old men to copy the ſhocking practice of ſome withered witches (as fame had reported) to renew their youth and ſtrength.

To Ficinus, who flouriſhed before the year 1470, I ſhall here ſubjoin Martin Panſa, a celebrated German phyſician, tho' he lived about an hundred and fifty years later, to ſhew that, even then, aſtrology and ſuperſtition were not baniſhed from the Faculty. But tho' a great many might be added, who were ſhamefully weak and credulous upon this article, as well as Panſa, I ſhall not trouble the reader with any more of their trumpery.

* Communis quædam eſt et vetus opinio, aniculas quaſdam ſagas, infantum ſugere ſanguinem; quo pro viribus juveneſcant. Cur non et noſtri ſenes ſanguinem moderatè miſſum e vena adoleſcentis ſani ſugant. De vit. ſtudioſ. producend. cap. 19.

MARTIN dedicated to the ſenate of Leipſic, *anno* 1615, a treatiſe entituled *Aureus libellus de proroganda vita.* He was one of thoſe who thought that the planets had a great influence on health, and that people ſhould be careful to know which aſpects and conjunctions of them might be favourable or hurtful to their reſpective conſtitutions, and that they ſhould chooſe ſuch habitations as their ſtars * directed. He informs us alſo, that we ought to be particularly mindful of our health every climacterical or ſeventh year, for which he gravely aſſigns the following reaſon, *viz.* becauſe Saturn, a malignant planet governs every ſeventh year of our lives; and as he is an enemy to our vital ſpirits, and ready to introduce ſome bad change into the animal oeconomy, it is our buſineſs, by ‡ pru-

* Ut ad quamcunque regionem potiſſimum inhabitandam et excolendam tuum ſidus te admonuerit, eandem tibi deligendam eſſe arbitreris. Part. 1. cap. 29.

‡ Si quæ vero ex infauſtis aſpectibus pericula impendent, tuum eſt arte et prudentia illa prævenire. Part. 1. cap. 29.

dence

dence and art to prevent the danger with which we are menaced.

OUR author however, in other places of his book, makes amends for amuſing people with ſuch fancies, by recommending cleanlineſs in their perſons, cloaths, houſes, and furniture; becauſe, ſays he, "naſtineſs ſtops the perſpiration, breeds "vermin, and overſpreads the body with "the itch, and other cutaneous eruptions."

ANOTHER of his valuable rules, is, that men of letters ſhould apply themſelves to cloſe and ſerious ſtudy only in the morning, but to entertaining books in the afternoon; and that they may indulge their taſte for contemplation and reading more in winter than in a hot ſummer, which waſtes their ſpirits.

HE obſerves in the third place, that thoſe who gratify a fretful and cenſorious humour, and are ever ready to find fault*, and

* This diſpoſition to find fault diſcovers alſo a poor and low genius, directly oppoſite to that of Longinus, who declares expreſly, that he took no pleaſure in the blemiſhes of any author: αὐτὸς καὶ ἥκιστα τοῖς πταίσμασιν ἀρεσκόμενος. Sect. 33.

think to raiſe their own reputation by depreciating others, ſoon conſume their vital balſam, and frequently meet with a premature death.

THE next in order of time to Marſilius Ficinus is Antonius Gazius of Padua, whoſe book *concerning health and long life*, was publiſhed *an.* 1491, by the title of *Corona florida*; but, with the moſt diligent ſearch in ſeveral libraries, I could not find it.

PLATINA CREMONENSIS addreſſed a ſhort treatiſe on health to Cardinal Roverella, *an.* 1529. He was no phyſician, but copies principally from Celſus all that he recommends. I mention him here for being the firſt, (to the beſt of my remembrance) who adviſes tender people to chew* their food well, if they expect that the ſtomach ſhould digeſt it, for how is it poſſible, ſays he, "that thoſe who ſwallow their meat whole, ſhould eſcape crudities and eructations?"

* Thoſe who have loſt their teeth ſhould be careful to have their meat cut very ſmall, in order to facilitate their digeſtion; and, for the ſame reaſon, old people ſhould diminiſh their ſolid, and increaſe their liquid aliment.

CHAP.

CHAP. XIV.

Of Lewis Cornaro and ſome others, who were ſo very curious and nice in the care of their health as to weigh their aliment.

AFTER Platina came the celebrated Lewis Cornaro, a noble Venetian, who wrote an excellent treatiſe in praiſe of ſobriety, from which I have made the following abſtract.

THE prevalence of cuſtom, ſays he, is amazing, and frequently gets the better of our reaſon. Luxury has gained ground in Italy within my memory, and is now reputed honourable, tho' it has deſtroyed more people than either the ſword or the peſtilence.

How many, to my grief, have I ſeen of my friends, men of great capacities and noble diſpoſitions, cut off in the flower of their age by intemperance; who, had they lived, would have been uſeful to their country, and an ornament to mankind! I myſelf

ſelf purſued the ſame pernicious courſe, and would have perſiſted in it, had not my tender conſtitution, and weak ſtomach, unable to bear exceſs, thrown me into colics, pains of my ſide, touches of the gout, a feveriſhneſs and perpetual thirſt, which hung about me from the thirty fifth year of my age to the fortieth, in defiance of the various remedies employed to remove them. My phyſicians obſerving that all their labour and ſkill was thrown away upon my infirm conſtitution, told me frankly that there remained but one remedy more to ſave my life, and that was a ſober and regular diet, which might ſtill reſtore my health tho' reduced ſo low; adding, that unleſs I entered upon it furthwith, I ſhould in a few months put myſelf out of capacity to receive any benefit from it, and in a few months more I ſhould be dead. Tho' they recommended the ſame regularity to me ſome time before to little purpoſe, yet as I found my complaints increaſing upon me, and as I had no inclination to die ſo ſoon, I firmly reſolved to follow

their

their advice without loſs of time. A few days in this regular courſe convinced me that I had at laſt found the right road, and a year put an end to all my former complaints, and reſtored me to a perfect ſtate of health.

To preſerve this health, I not only continued my regular diet, which conſiſted in twelve ounces of ſolid food taken every day, including bread, yolks of eggs, fleſh, fiſh, *&c.* and fourteen ounces of liquids; but I was alſo careful to avoid heat, cold, fatigue, grief, watchings, and every other exceſs that might hurt my health. It is true, I could not always eſcape unlucky accidents, but I found by experience, that they had no very bad effect, where temperance in eating and drinking had been ſtrictly obſerved. The two following inſtances confirm this truth: My brother, and ſome more of my family, who did not lead the ſame regular life I did, being greatly dejected at a law ſuit carried on againſt me, which, had I loſt it, might have proved

my

my ruin, fell a ſacrifice to their melancholy and intemperance; whereas I, who was principally concerned, enjoy'd perfect health all the while, and lived to ſee my affairs brought to a happy concluſion. I was, at another time, overturned in a chariot, which was dragged by the horſes a conſiderable way, and had my head and whole body much bruiſed, and one arm and one foot diſlocated. My phyſicians adviſed bleeding and purging to prevent an inflammation; I told them, that if they would be pleaſed to reduce my foot and arm, I ſtood in no need of other helps, having no diſtempered humours to bring on defluxions. Thus I recovered without any other remedies, to the ſurprize of all my acquaintance.

ANOTHER truth of great moment I have alſo learned from experience, *viz.* that a regular method of living, long perſiſted in, cannot be altered without extreme danger. It is now four years ſince my phyſicians and my family inſiſted upon my making ſome ſmall addition to my food, alledging, that

as

as my age was advanced, and my ſtrength impaired, I ſtood in need of more nouriſhment to ſupport me. It was in vain to anſwer that, if my ſtrength was impaired, my digeſtion by conſequence muſt be weaker, and therefore my food ſhould be rather diminiſhed than increaſed. My remonſtrance was not regarded, and I was forced to yield to their well meant importunities. Accordingly I increaſed my food to fourteen, and my drink to ſixteen ounces; but I had not continued this addition above ten days, when, from being lively and chearful, I began to grow dull, low ſpirited, uneaſy to myſelf, and troubleſome to all about me; on the twelfth day I was ſeized with a pain in my ſide, which laſted twenty-two hours, then came on a fever, which continued thirty-five days and nights, ſo that my life was deſpaired of. By God's mercy, however, and my old regimen, I recovered, and now at eighty-three I enjoy a vigorous ſtate of body and mind. I mount my horſe from the level ground, I climb ſteep aſcents with eaſe, and have lately wrote a comedy full

of

of innocent mirth and raillery. When I return home, either from private buſineſs or from the ſenate, I have eleven grandchildren, with whoſe education, amuſements and ſongs, I am greatly delighted; and I frequently ſing with them, for my voice is clearer and ſtronger now than ever it was in my youth. In ſhort, I am in all reſpects happy, and quite a ſtranger to the doleful, moroſe, dying life of lame, deaf, and blind old age, worn out with intemperance.

It remains only (ſuch a ſober regular life is ſo happy in its conſequences) that I exhort and beſeech all men of ſenſe and reſolution to poſſeſs themſelves of this ſource of health, more valuable than all the riches of the univerſe.

Leonardus Leſſius a learned Jeſuit of Louvaine, who lived about the end of the ſixteenth century, was ſo much pleaſed with Cornaro's treatiſe on ſobriety, that purely to recommend it, he has written

a book intitled *Hygiaſticon*, or *The true method of preſerving life and health to extreme old age*. In this book he praiſes a ſober life as the principal means of health. By a ſober life he underſtands, that we ſhould neither eat or drink more than what is neceſſary for our reſpective conſtitutions, in order to perform the functions of the mind with eaſe. Or, to be more particular, he ſays, that the proper meaſure of meat and drink for every individual, is ſuch a quantity as his ſtomach will be able to digeſt perfectly well, and will be ſufficient to ſupport him under the employment of body or mind that providence has appointed for him. But to prevent miſtakes with regard to what the ſtomach may be perfectly able to digeſt, and to what may be thought ſufficient to ſupport men under their reſpective occupations, he recommends the following rules:

Firſt, He who eats or drinks ſuch a quantity as renders him unfit for any exertion of the mind to which his profeſſion

calls him, has certainly exceeded, and ought to retrench. And he, who in bodily labour or exerciſe was active and nimble before meals, if he becomes heavy and dull after meals, has certainly tranſgreſſed; for the true end of eating and drinking is to refreſh, and not to oppreſs the body.

Second, THO' there cannot be a certain and invariable meaſure preſcribed to all perſons, becauſe of the difference of ages, conſtitutions and occupations; yet, generally ſpeaking, to thoſe who are old, or of a tender conſtitution, and live a ſedentary life, twelve, thirteen, or fourteen ounces of ſolid food, including bread, fleſh, fiſh, and eggs, together with an equal * quantity of drink, will be ſufficient. And this rule has been verified by the experience chiefly of thoſe whoſe proper employment has been ſtudy and meditation.

* In this he is miſtaken, for the quantity of drink ſhould exceed that of the ſolid food, in almoſt all circumſtances of life.

Third

Third rule, THE quality ‡ of people's food and drink is little to be regarded, if it is but plain, and ſuch as common uſe has recommended, and does not particularly diſagree with him who uſes it, provided the quantity be properly adjuſted.

Fourth rule, To cure you of your fondneſs for high living, conſider theſe delicacies you ſit down to, not as they appear on the table, but as they will be quickly altered after you have eat them; for the richer their flavour and taſte is now, the more corrupted and acrimonious they will become in your body, and the more hurtful will be their conſequences.

OUR author, in the *laſt* place, proves the advantages of ſobriety by the experience of ſuch as made trial of it, ſome of whom lived in the deſerts on bread, dates, ſallad, and water, to an hundred years and

‡ This rule is calculated for perſons of a ſtrong conſtitution only, but not for the puny or delicate.

upwards.

upwards. Paul, the hermit, ſays he, died at the age of 115 years; of which he ſpent near an hundred in the deſert, living for the firſt forty on dates and water only, and for the remaining time on bread and water, as Jerom teſtifies. St. Anthony lived to 105, of which he paſſed more than eighty in the wilderneſs on bread and water, with the addition at laſt, of a little ſallad, according to Athanaſius. Arſenius, the preceptor of the emperor Arcadius, lived to 120, of which he ſpent the firſt ſixty-five in the ſocial world, and the other fifty-five in the deſert with great abſtemiouſneſs. And Epiphanius lived with equal auſterity to almoſt 115.

BUT the moſt recent example, and the moſt to his purpoſe, was that of Lewis Cornaro, who died at Padua when he was above 100 years old, *anno* 1566.

CHAP. XV.

Of the phyſicians who wrote on health in the ſixteenth century before Sanctorius, viz. *Thomas Philologus of Ravenna; Vidus Vidius; Hieronimus Cardanus; Alexander Trajanus Petronius; Levinus Lemnius; Jaſon Pratenſis; Joannes Valverdus de Hamuſco; Gulielmus Gratarolus; Henricus Ranzovius; Æmilius Duſus; Ferdinandus Euſtachius, and Oddi de Oddis.*

THOMAS PHILOLOGUS of Ravenna addreſſed to pope Julius III. a treatiſe, "De vita ultra annos 120 protrahenda," which he profeſſes to have collected with great labour and aſſiduity from the writings of the learned. He complains that voluptuouſneſs and avarice had ſhortened the lives of the noble Venetians to ſuch a degree, that whereas formerly ſeveral ſenators, every one at leaſt an hundred years old, uſed to appear on the ſtreets together, venerable by their white locks and rich robes,

robes, there was not one to be ſeen in our author's time who had reached ninety: He therefore recommends temperance and purity of manners as the principal means to promote longevity. He recommends likewiſe a pure air to thoſe who deſire length of days, and is the firſt phyſician, I know of, who cenſures the pernicious cuſtom of having public burying places in populous cities, which taint the atmoſphere with cadaverous ſteams, and frequently occaſion fatal diſtempers. "I am aſtoniſhed, con-
"tinues he, that the moderns ſhould ap-
"prove of a practice, which the wiſeſt na-
"tions of antiquity prohibited by the
"moſt ſolemn laws."

ABOUT the middle of the ſixteenth century, Vidus Vidius, a Florentine, publiſhed a large volume on the preſervation of the health of the body in general *, and of every member in particular, cleared (as

* De tuenda valetudine generatim libri ſex, membratim libri quatuordecim.

he

as he pretends) from all the errors both of the Greeks and the Arabians. He had been invited to Paris by Francis I. and taught phyſic there, during the life of that auguſt and munificent patron of learning; and after his death was called home *anno* 1557, and highly encouraged by Coſmus duke of Tuſcany.

In this performance concerning health, Vidius has ſo cloſely adhered to the theory of Galen, "without one inſtance from his "practice to enliven it," and is ſo full of the endleſs diſtinctions and diviſions of Avicenna, that there is not one new or entertaining precept to be met with in his whole work, tho' he was undoubtedly a man of great literature.

The famous Hieronimus Cardanus is another of our voluminous writers on the ſubject of health, but has not added many rules of great importance to thoſe mentioned by former phyſicians. He was deſcended from a noble family in Milan, and born at Pavia (whither his mother fled from the plague)

anno

anno 1500. He is magnified by ſome for his extenſive knowledge in the ſciences, and was ſent for from Italy, as far as Scotland, to cure the archbiſhop of St. Andrews, which he did, of a dangerous illneſs: But others hold him in ſmall eſteem. His book on health and long life is reckoned one of his beſt performances; but he is a very unequal writer. He takes upon him to blame Hippocrates and Galen in things wherein all the world think them to be right, except himſelf. He exclaims, for example, againſt uſing any exerciſe that can fatigue a man in the ſmalleſt degree, or throw him into the moſt gentle ſweat, or in the leaſt accelerate his reſpiration; and gravely obſerves, that trees live longer than animals, becauſe they never ſtir from their places: He maintains that Galen's treatiſe on health is full of miſtakes; and as a proof of this, obſerves, that Galen himſelf died at ſeventy-ſeven, which cannot properly be called old age. "Poor Car-
"dan did not then foreſee that this ob-

jection

" jection (ſuppoſe it to have any weight)
" might one day be urged more juſtly a-
" gainſt himſelf who died at ſeventy-five."

But to do him juſtice: He was the firſt who gave us marks or ſymptoms of longevity, which when they meet in the ſame perſon, are, for the moſt part, true indications of long life, *viz.* firſt, to be deſcended from a long-lived family, at leaſt by one of the parents. Secondly, to be of a chearful eaſy diſpoſition, undiſturbed by any irkſome care or diſquietude of mind: And, thirdly, to be naturally a long and ſound ſleeper.

The quantity of aliment which he recommends is very ſmall, after the manner of Cornaro, whom he admires much: And though the abſtemiouſneſs which he enjoins would ill agree with perſons of an active and laborious life, and ſoon exhauſt their ſtrength, and render them uſeleſs; yet to people of a delicate conſtitution, full of care and diſquietudes, or confined to a ſedentary life, the meaſure of ali-

ment which he allows, under the reſtrictions annexed to it, is perhaps the beſt rule of health in his book.

THE true meaſure of eating and drinking, ſays he, is, " that a man ſhall feel " no fulneſs or weight in his ſtomach, but " ſhall be able to walk or write immediate- " ly after meals, in caſe either ſhould be " neceſſary; that his ſleep ſhall not be diſ- " turbed or ſhortened by his ſupper; that " he ſhall have neither head-ach, nor bad " taſte in his mouth next morning; and " that he ſhall awake refreſhed and chear- " ful after his night's reſt.

HIS fourth book on old age is the moſt entertaining part of the whole performance. Who can forbear being pleaſed with his chearful and ſocial diſpoſition at ſeventy-three, and with his lively hope which he ſtretches beyond the grave? For my part, ſays he, " I am more joyful now than ever " I was in my youth. I ſhall die, 'tis true, " and

" and leave my friends behind me, but I " ſhall find others where I go, and I know " that thoſe who are left behind will " quickly follow me."

SOON after the death of Cardan, Alexander Trajanus Petronius publiſhed his book concerning the aliment of the Romans, and the preſervation of their health, which he dedicates to Pope Gregory XIII. In it he treats of the ſituation, air, winds, waters, and healthy ſeaſons of Rome; and alſo of the food, ſolemn faſts, and epidemical ailments of the Romans. This book is written with great judgment and accuracy, and is an excellent model for any phyſician who inclines to do the ſame good office to the city in which he reſides.

SEVERAL Authors, beſides thoſe already named, have written upon the conſervation of health in the ſixteenth century, before the celebrated Sanctorius. I ſhall mention the moſt eminent among them, for the ſake of the curious, who may have a-

mind

mind to consult them, but shall not dwell long upon their works; and perhaps there have been but few * improvements or variations in this branch of physic, from the times of the Greeks and Arabians, down to Sanctorius, who flourished in the close of this century.

These authors stand in order of time, as follows:

Levinus Lemnius was born in Zeland *anno* 1505, and practised physic for several years with good success: But having had the misfortune to lose his wife, entered into holy orders; in consequence of which, his writings partake both of morality and physic. His exhortation to lead a virtuous life, in order to secure the health both of body and mind, sets forth, that "health "is preserved by temperance in eating and "drinking, wherein excess is indecent, as

* Les regles pour la conservation de la santé, et ce qu'il y a à dire sur les qualitez et le choix des alimens, etant un sujet où il y a le moins de variations depuis les tems les plus anciens jusqu' au nôtre. Le Clerc Plan de l'histoire de la medecine, pag. 3.

"well

" well as pernicious; and by a moderation
" in all the other articles which Galen *
" calls the preſervatives of health, but
" moderns call the *Six Non-naturals*, not
" that they are by any means *unnatural*,
" but becauſe they are not within the bo-
" dy like our blood and humours, though
" they have influence enough to hurt or
" deſtroy it, when a bad uſe is made of
" them."

JASON PRATENSIS a Zelander, likewiſe wrote a treatiſe *De tuenda ſanitate, anno* 1538. He regrets that his many avocations, and a nine months illneſs did not permit him to write up to the idea which he had of his ſubject. He is, nevertheleſs, a lively writer, and a good claſſical ſcholar, which makes his book very entertaining, tho' it has little or nothing new with reſpect to health.

ANTONIUS FUMANELLUS VERONENSIS wrote *De ſenum regimine, anno* 1540;

* Lemnius did not advert, that Galen was himſelf the perſon who introduced the appellation *Non-natural.*

wherein

wherein he declares, "that he follows the "sentiments of Hippocrates and Galen."

JOANNES VALVERDUS de HAMUSCO, a Spaniard, publiſhed his treatiſe *De animi et corporis ſanitate ad Hieronimum Verallum Cardinalem, anno* 1552. It is ſhort, but written with a great deal of good ſenſe; and as the author had an opportunity of travelling into diſtant countries, his obſervations enabled him to add this new rule to the old ones, *viz.* That it is neceſſary to diverſify our method of living, according to the nature of the climate in which we may chance to reſide. "When I was in Scotland * "(ſays he) I could not forbear eating "more frequently than I uſed to do in my "own country."

GUILIELMUS GRATAROLUS a Piedmonteſe, publiſhed his book *De literatorum,*

* Cum ego, qui meridionalem magis incolo regionem, apud Scotos agerem, non poteram me continere, quin pluribus vicibus cibum aſſumerem, quam antea eſſem conſuetus.

et

et eorum qui magiſtratum gerunt, conſervanda valetudine, anno 1555. He inculcates a moderation in the five following articles; namely, eating, drinking, labour, ſleep, and concubinage; and affirms, that thoſe great fathers of phyſic, Hippocrates and Galen, have recommended the ſame moderation, as the principal means to ſecure health.

HENRICUS RANZOVIUS, a Daniſh nobleman, wrote *De conſervanda valetudine in privatum liberorum ſuorum uſum, anno* 1573. The firſt and moſt valuable precept in his book, is, to worſhip and ſerve God, and to pray to him for health; "for (continues "he) tho' the ſtars have their influence, "it will be always true, that

Aſtra valent aliquid, plus pia vota valent.

ÆMILIUS DUSUS compoſed his book *De tuenda valetudine ad Carolum Sabaudiæ Ducem, anno* 1582; but copies Galen in every thing that is material.

Laſtly, FERDINANDUS EUSTACHIUS, ſon

ſon to the famous anatomiſt Bartholomæus Euſtachius, wrote *De vitæ humanæ a facultate medica prorogatione*, dedicated to pope Sixtus V. *anno* 1589. This author has indeed refuted many arguments alledged to prove that the medical art is of no uſe in prolonging life; but is quite ſilent as to the means by which that end may be attained.

It would make this compilation too tedious to take notice here of all theſe authors that have advanced ſome fanciful ſpeculations on the different proportions of food at different meals, which they imagined to be of great importance to health; ſuch, for inſtance, as Oddi de Oddis, who, in his treatiſe *De cœnæ et prandii portione*, publiſhed *anno* 1570, aſſerts, that people ſhould make ſupper their fulleſt, and dinner their lighteſt meal.

CHAP.

CHAP. XVI.

Of Sanctorius.—His useful discovery of insensible perspiration, and observations upon it.—Of those physicians who adapted his method to their respective climates, as Dodort in France, Keil in Britain, De Gorter in Holland, Rogers and Robinson in Ireland, and Linen in Carolina.—Of their aphorisms.—Of the inhalation of moisture from the air, where mention is made of Doctor Jones.

SANCTORIUS SANCTORIUS was born in Istria, a territory in Italy belonging to the Venetians, and studied at Padua, where he afterwards became a celebrated professor. He was from thence invited to practise physic at Venice, for the benefit of the citizens, and tho' he left the university, yet the republic, as a mark of esteem, continued his salary to his death, which happened *anno* 1636, in the 75th year of his age.

He opened a new scene in physic, to which physicians and philosophers were in a

great meaſure ſtrangers before his time; and upon experiments made with amazing diligence and aſſiduity for thirty years, has eſtabliſhed ſeveral laws of *inſenſible perſpiration*, or aphoriſms, of which ſome are ſo uſeful toward the preſervation of health, that it will be neceſſary to take notice of them; diſtinguiſhing at the ſame time, and ſelecting ſuch as are founded in nature and confirmed by experience, from thoſe which were apparently ſuggeſted by the falſe theory of phyſic that ſtill prevailed in his days. And it will be no incurious entertainment to compare his experiments made *by weighing the body*, with the obſervations of the antients made on *temperance* and *exerciſe*, and to mark the harmony which ſubſiſts between them. Both have, by different means, eſtabliſhed the ſame maxims for the conſervation of health, ſo that his experiments and their obſervations mutually illuſtrate and confirm each other.

THAT Galen was acquainted with the inſenſible perſpiration in general, is evident from

from his own words: "This excrementi-
"tious vapour *, ſays he, is expelled
"through ſmall orifices, which the Greeks
"call pores, diſperſed all over the body;
"and eſpecially over the skin, partly by
"ſweat, and partly by inſenſible perſpira-
"tion, (ἄδηλος αἰσθήσι διαπνοὴ) which e-
"ſcapes the the ſight, and is known to
"few." And all the phyſicians from his time down to the cloſe of the ſixteenth century, had only a general and vague idea of tranſpiration, and may be ſaid to have juſt known that there was ſuch a diſcharge. But to Sanctorius was reſerved the honour of calculating the true quantity of this perſpiration by the balance; of ſhewing that it is larger than all the ſenſible evacuations taken together; and of ſettling rules by which it may be rendered highly ſubſervient to health.

As the difference of climates makes a conſiderable difference in the quantity of

* De ſanit. tuend. lib. 2. cap. 12. ſub. finem.

perſpiration,

perſpiration, phyſicians of ſeveral countries have thought it worth while to repeat the ſtatical experiments which Sanctorius made, in order to compare the ſenſible and inſenſible evacuations of the human body in their reſpective climates with thoſe in Italy.

THE firſt was doctor Dodart in France, a learned, inquiſitive and conſcientious phyſician, who began his experiments *anno* 1668, and continued them with little interruption for thirty-three * years.

THE next was the ingenious Dr. James Keil in Great Britain, who, *anno* 1718, publiſhed his tables of obſervations, made without any interruption for one whole year; together with ſeveral trials which he had made at different times, during the ten preceeding years.

AFTER him came De Gorter in Holland, who printed the firſt edition of his

* Hiſt. de l' acad. des ſciences, *anno* 1707. Eloge de M. Dodart. NOTE, His medicina Stat. Gallic. is printed with Noguez's explanation of Sanctorius's aphoriſms.

book

book concerning inſenſible perſpiration, *anno* 1728, and his ſecond edition *anno* 1736. From Keil and De Gorter, both men of a clear mathematical diſcernment, we learn to correct the calculations of Sanctorius, which otherwiſe might miſlead the inhabitants of a colder region. And indeed De Gorter, (under the direction of Boerhaave) by his experiments and judicious reflections, has thrown a great deal of light upon this ſubject.

THEN came out the performance of a curious gentleman in Ireland, who having read Dr. Liſter's Sanctorius; and having afterwards found that Keil, in his treatiſe on perſpiration, made the inſenſible diſcharge in Britain, much leſs than that in Italy, reſolved to go himſelf through a courſe of ſtatical experiments for one year; and in his letter to Dr. Rogers very modeſtly ſays, "Some irregular obſervations, "from the 20th November 1720, to the "1ſt of May 1721, I made, ſcarce worth "mentioning; but afterwards I formed

"tables

" tables ſomething more regular. If I " had thought that they ſhould be made " public, I had been more careful and " correct."

In another paragraph he ſays, " Not " having ſufficient room in the ſpace of a " quarter of a ſheet, I was obliged to " leave out entirely thoſe which treated " of diet and exerciſe, and even thoſe of " ſtools, except for two months."

THIS performance appeared firſt with Dr. Rogers's ingenious " eſſay on epidemi- " cal diſeaſes, *anno* 1734." And tho' the author of the experiments had ſuch an humble opinion of his own perfor- mance: Yet in the doctor's hands it be- came a finiſhed piece, which, as he ſays, " brings the ſtatical medicine to as great " a certainty in Ireland, as it ever arrived " to in Italy, under the laborious endea- " vours of the moſt experienced Sancto- " rius." This is very wonderful, conſider- ing that the Iriſh *Country Gentleman* em- ployed fewer months in making his expe-

riments,

riments, than the *Italian phyſician* did years. But be that as it will, the learned gentleman's experiments and notes, and the ſubſequent aphoriſtical rules (from whatever ſource they were drawn) are both ingenious and uſeful. We have in the ninth * volume of the philoſophical tranſactions, Dr. John Linen's ſtatical experiments, made at Charles-town in South Carolina for one whole year, from March 1740 to March 1741, with the laudable view of finding out the cauſe of the *epidemic diſtempers*, which return regularly in that country at *ſtated ſeaſons*. But general tables, made in a very different climate, without any aphoriſms drawn from them, cannot contribute much to the preſervation of health in this country.

THE laſt performance relating to ſtatical experiments, that has come to my hands, is doctor Bryan Robinſon's diſſertation on *the food and diſcharges of the human body*, publiſhed *anno* 1748: But his numerous calculations, and refined manner of

* The origin. tranſact. and not the abridgments.

reaſoning,

reaſoning, are above the comprehenſion of common readers, and conſequently do not correſpond well with my preſent purpoſe. To give a ſpecimen of the latter; in page 77, he expreſſes himſelf in the following words: "Anger and joy increaſe, and "fear and ſadneſs leſſen, both perſpira-"tion and urine. The ſoul which has "great power over the body, by virtue of "the æther, when it is made uneaſy by "the paſſion of anger, raiſes a ſtrong vi-"brating motion in the æther, within its "ſenſorium, which motion is propagated "thro' the nerves to all parts of the "body."

BUT to return to Sanctorius. This phyſician has divided his book of aphoriſms into ſeven ſections. In the firſt he makes ſome general obſervations on weighing the inſenſible perſpiration: In the ſecond he treats of air and water: In the third, of meat and drink: In the fourth, of ſleep and wakefulneſs: In the fifth, of exerciſe and reſt: In the ſixth, of concubinage; and in the ſeventh, of the paſſions and affections of the mind.

I SHALL

I SHALL tranſcribe promiſcuouſly from Sanctorius, and the other authors on ſtatical experiments above mentioned, ſuch maxims as conduce moſt to the preſervation of health; and ſhall range them under their reſpective ſections, according to the method of Sanctorius.

SECTION I. Of weighing the inſenſible Perſpiration.

1. INSENSIBLE perſpiration, by the pores of the ſkin, and by the breath, is greater than all the ſenſible evacuations joined together; for, if a ſtrong healthy man, who uſes moderate exerciſe, in good weather, eats and drinks eight pound weight in a day, he will diſcharge five of them by inſenſible perſpiration; and we are more relieved by a free inſenſible perſpiration, than by all the ſenſible evacuations united.

2. HEALTH continues firm as long as the body returns daily to the ſame weight by inſenſible perſpiration; it begins to de-

cline when the body is reduced to the ſame weight by a larger diſcharge of ſtool or urine than uſual; but if the body does not recover the ſame weight in ſome days, either by inſenſible perſpiration, or by ſome ſenſible evacuation, the approach of a fever, or ſome bad ſtate of health, is to be apprehended.

3. THE purer our perſpiration is, or the leſs mingled with any ſenſible moiſture, the more wholeſome it is.

4. To feel the body heavy, when it is actually light on the balance, ſhews a worſe ſtate of health, than to feel it weighty when it is really ſo. On the other hand, to feel it light, when it is really heavy on the balance, ſhews an excellent ſtate of health.

5. PAIN of the head, or of any other part of the body, diminiſhes the perſpiration.

6. IT is a ſure ſign of good health when a perſon can climb up an aſcent with pleaſure.

7. LENIENT

7. LENIENT gentle purges do not leſſen the perſpiration, but only diſcharge an uſeleſs load; whereas ſtrong purges hinder it, and are hurtful in many reſpects.

8. THE bodies of young healthy men, who live moderately, grow weightier every month by two or three pounds, and ſometimes, towards the end of the month, they feel a weight in their heads, or a wearineſs; but ſoon return to their uſual ſtandard again, by a diſcharge of turbid urine, or ſome other evacuation.

9. THE principal cauſes which ſtop perſpiration are, a cold damp air; hard viſcid food; diſuſe of exerciſe; faſting; terror; reſtleſs nights; and an increaſe of any ſenſible evacuation.

10. THERE is a great deal more perſpired in youth than in old age; and the quantity of perſpiration differs according to different conſtitutions, ways of living, climates and ſeaſons.

11. A VERY material queſtion follows, *viz.* How ſhall a man fix upon the preciſe quantity of perſpiration, which will ſecure to him a permanent ſtate of good health to old age? Sanctorius ſays, that he may ſecure it by the following experiment:

LET him, after a plentiful ſupper, compute how much he has diſcharged by inſenſible perſpiration in the ſpace of twelve hours: Suppoſe, for example, that he has loſt fifty ounces; let him again weigh himſelf ſome morning, after having taken no ſupper at all, nor committed any exceſs in his preceeding dinner; and then calculate how much he has thrown off by inſenſible perſpiration; ſuppoſe twenty ounces. This being known, let him chuſe ſuch a diet, and uſe ſuch exerciſe, and ſuch a moderation in the other *Non-naturals*, as will bring his inſenſible perſpiration to a medium between fifty and twenty ounces, *i. e.* to thirty-five ounces every day, and by this method he may preſerve his health to an hundred years. "But this is a tedious

" method,

" method, which no man will ſubmit to,
" and it is plain the author himſelf did
" not, for he died in the 75th year of his
" age."

KEIL ſays that the true rule of diet to every man, is his natural undepraved appetite. By this monitor he is directed, without the trouble of weighing himſelf, to the exact quantity of meat and drink which he ought to take in; for nature never craves more, nor is eaſy with leſs, than what is proper for her.

DE GORTER, in anſwer to this queſtion, ſays, " I have found, by repeated trials
" with the balance, that if a healthy man
" eats and drinks as much as is ſufficient
" to ſatisfy his hunger and thirſt; and riſes
" from table without quite filling his ſto-
" mach, or, with ſome remaining appetite,
" his daily diſcharges will be equal to
" what he has taken in; or, in other
" words, he will enjoy a good ſtate of
" health; becauſe health principally de-
" pends upon ſuch an equality.

" IN

"In order therefore to ſecure a conſtant "ſtate of good health, continues he, a "man ſhould be careful to uſe ſuch exer- "ciſe, and ſuch a moderation in the other "means of life, as will excite this natural "appetite of hunger and thirſt every day; "and then ſhould ſatisfy it with plain "wholeſome meat and drink, in the tem- "perate method above recommended."

THIS is the proper anſwer to the queſtion of Sanctorius, which every man's own experience may verify with little trouble.

SECT. II. Of Air and Water.

1. IN a cold, pure, healthy air, the perſpiration is indeed obſtructed; but the fibres are ſtrengthened, and the matter retained is neither dangerous nor painful; whereas, in a damp impure air, the perſpiration is ſtopped, the fibres relaxed but not ſtrengthened, and the matter retained is both bad and troubleſome.

2. THE perſpiration is obſtructed by a-

ny air which is too cold, too moiſt, or very tempeſtuous.

3. THE air of a city is generally worſe than that of the country, being groſſer, from the ſteams of the inhabitants; and more apt to pall the appetite.

4. COLD air, and a cold bath, warm robuſt bodies, and make them feel lighter to themſelves; but infirm bodies feel themſelves colder and heavier from them; and the more ſuddenly the cold comes, the more it hurts.

5. A cool and pleaſant gale does more hurt to bodies overheated, than either air, or water extremely cold; for the former obſtructs and relaxes, which makes the body heavy; whereas the latter, tho' it obſtructs for a while, yet ſtrengthens at the ſame time, and ſoon makes the body feel lighter.

6. SWIMMING in cold water, after violent exerciſe, is pleaſant but pernicious.

7. FANNING

7. FANNING ſtops the perſpiration, and makes the head hot and heavy.

8. CONTINUAL rain is more unwholeſome than continued dry weather, becauſe it makes the body heavier.

9. A man is more apt to complain of wearineſs in ſummer than in winter, not from any greater weight of his body, (which by the balance is about three pound lighter) but becauſe his fibres are relaxed, and weaker in a warm air.

10. STRONG people perſpire moſt in the ſummer days, and in the winter nights; and an obſtructed perſpiration which diſpoſes the body to a malignant fever in ſummer, does little harm in winter, becauſe the perſpirable matter is more acrid in hot weather than in cold.

11. OF all the ſeaſons, the autumn is the moſt unhealthy, becauſe the perſpirable fluid is both obſtructed, and apt to grow putrid;

putrid; but it cannot hurt him whom the coldneſs of that ſeaſon ſhall find well cloathed; who uſes a proper diet; and whoſe body conſequently continues nearly of the ſame weight as before.

12. THOSE who lay aſide their winter garments too early in the ſpring; and put them on too late in autumn; will often have fevers in ſummer, and defluxions in winter.

SECT. III. Of Meat and Drink.

1. THE body perſpires little, while the ſtomach is too full, or quite empty.

2. A FULL diet is hurtful to thoſe who uſe very little exerciſe, but indiſpenſably neceſſary to ſuch as uſe a great deal of exerciſe which is not violent.

3. IF you know what quantity * of food you ought to take daily, and can adjuſt your exerciſe to it, you know how to preſerve your health to old age.

* This aphoriſm, and ſeveral more, are borrowed from Hippocrates.

4. That ſort of food, of which the weight is not felt in the ſtomach, nouriſhes beſt and perſpires moſt freely. And that quantity is moſt wholeſome, which, after meals, leaves the body as nimble and active as if one had eat nothing.

5. He who, being hungry, goes to bed without any ſupper, will perſpire but little: And if he does ſo frequently, will be apt to fall into a fever.

6. The fleſh of young animals; and good mutton; and wheat bread properly leavened, or mixt with a due quantity of barm and ſalt, and well baked; are excellent ſorts of food, light and eaſy of digeſtion.

7. The body feels heavier after four ounces of any ſtrong food that nouriſhes much, ſuch as pork, eel, or any fat fleſh or fiſh, than after ſix of food that affords but little nouriſhment, as tender freſh fiſh, chickens, and ſmall birds; for where the digeſtion is difficult, the perſpiration is ſlow.

8. Unusual

8. UNUSUAL faſting renders the body too light, and frequently repeated brings on a bad ſtate of health.

9. THE body becomes more heavy and uneaſy after ſix pounds taken in at one meal, than after eight taken at three meals; and he deſtroys himſelf by degrees who makes but one meal in the day, let him eat much or little.

10. HE who eats more than he can digeſt, is nouriſhed leſs than he ought to be, and conſequently emaciated.

11. TO eat immediately after any immoderate exerciſe of body or mind is bad; for a body fatigued perſpires little.

12. EVERY body has its particular latitude, that is, its veſſels may be ſtretched to a certain degree, and yet reſtore themſelves. Four pounds of meat and drink is as much, or more than ſome conſtitutions

ſtitutions can well bear; whereas others can take in eight pounds without any inconvenience.

13. A MAN's common diluting drink at meals ſhould be double the quantity of the ſolid food he eats.

14. GOOD wine, moderately drank, aſſiſts digeſtion, and increaſes the perſpiration.

15. THE perſpiration is as large from a good fire in winter, as from the ſun in ſummer.

SECT. IV. Of Sleep and Wakefulneſs.

1. SANCTORIUS aſſerts, that ſtrong healthy perſons often perſpire fifty ounces in ſeven hours of ſound ſleep, and, generally, double the quantity of what they perſpire in the ſame number of hours when awake. But by Keil's tables, and De Gorter's reiterated experiments, it is evident that our nocturnal perſpiration rarely riſes to ſixteen ounces; and that in England and Holland men perſpire more in the day than

than in the night. "We find, however, "notwithſtanding this great difference in "the quantity perſpired in different cli- "mates, that ſound ſleep is equally refreſh- "ing in all countries, and that it not on- "ly promotes the nocturnal perſpiration, "which would be much leſs in a wakeful "ſtate, but likewiſe greatly increaſes our "ſtrength and ſpirits."

2. AFTER a good night's ſleep, the body feels lighter, both from the increaſe of ſtrength which it receives, and from the quantity of matter which it throws off.

3. THOSE accidents which prevent ſleep, are found alſo to obſtruct the perſpiration, which is much diminiſhed by a reſtleſs night.

4. THE perſpiration is obſtructed more by a cool ſoutherly air when we are aſleep, than by any intenſe cold when we are awake.

5. A CHANGE of bed commonly diminiſhes the perſpiration; for things which we

are

are not accuſtomed to, tho' perhaps better in their own nature, ſeldom agree with us.

6. STRETCHING and yawning after ſleep increaſe the perſpiration.

7. THE perſpiration being copious in time of ſleep, and hindred from flying off by the bed clothes, ſick perſons communicate their diſtempers to the healthy who lye with them; and even the healthy infect the healthy with any bad humours which they have about them.

8. WE know that we have ſlept ſufficiently, when in the morning we find our underſtanding clear, and our body active and lively.

9. By too much ſleep, the body becomes cold, dull and heavy.

10. THE perſpiration is obſtructed more, and we catch cold much ſooner by throwing off our blankets in our ſleep, than by throwing off our cloaths when we are awake.

11. A moderate glaſs of good wine induces ſleep, and increaſes the perſpiration; but drank to exceſs, leſſens both.

Sect. V. Of Exerciſe and Reſt.

1. The body perſpires much more when it lies quiet in bed, than when it toſſes and tumbles there.

2. By moderate exerciſe the whole body becomes lighter and more lively; the muſcles and ligaments are cleanſed from every foulneſs, and the matter to be diſcharged by perſpiration is prepared for it.

3. If after ſupper one lyes ten hours in bed, he will perſpire freely the whole time; but if he lyes longer, both the ſenſible evacuations and the inſenſible perſpiration will immediately be diminiſhed.

4. Violent exerciſe of body and mind perſiſted in, brings on an early old age, and a premature death.

5. Ex-

5. EXERCISE is then moſt wholeſome, when, after having digeſted our food twice in the day, our body returns nearly to its uſual weight before the next meals.

6. RIDING on horſeback increaſes the perſpiration rather of the parts above, than below the waſte; and an eaſy pace is much more wholeſome than a hard trot: But to ſuch conſumptive or infirm perſons as are fatigued more by riding on horſeback than in ſome eaſy carriage, the former cannot be ſo proper as the latter, becauſe their ſtrength ſhould be recruited, and not exhauſted by exerciſe.

7. To ride hard over a rough road, in an ill hung coach or chaiſe, is the moſt violent of all exerciſes, which not only precipitates the perſpiration, being yet crude, but alſo hurts the ſolid parts of the body, and particularly the kidneys. Leaping is in like manner an unhealthy exerciſe, on the ſame account.

8. To

8. To be carried a little way in a ſedan chair, or horſe litter, or barge, does not increaſe the perſpiration ſo much as walking does; but ſuch ſorts of motion, if properly continued, are very healthful, and diſpoſe the body to a free perſpiration.

9. MODERATE dancing promotes perſpiration, and is a healthful exerciſe.

10. THE principal and moſt uſeful ſorts of exerciſe within doors are tennis, hand-ball, dumb-bell, dancing, fencing, and ſhittle-cock *. The beſt without doors are walking, bowling, riding † in wheel machines or on horſeback.

11. WHEN the perſpiration is defective, the remedy is exerciſe.

SECT. VI. Of Concubinage.

1. BOTH extremes of exceſs and abſtinence obſtruct the perſpiration; but much more exceſs.

* To which ſhould be added, (eſpecially where a good digeſtion is wanted) a chamber-horſe or tremouſſoir.

† The golf alſo ſhould be practiſed, where a proper field or bare common can be met with at a reaſonable diſtance.

2. By excesſ the ſtomach is weakened, the natural heat diminiſhed, and the perſpiration obſtructed; whence follow indigeſtion, flatulencies, palpitations at the heart, gravel in the kidneys, catarrhs, and loſs of memory.

3. Excess is more pernicious in ſummer than in winter, becauſe the digeſtion being weaker in that ſeaſon, is more difficult to be recovered, and the perſpiration being more free, any ſtoppage of it is ſooner felt.

4. Next to the ſtomach, the eyes ſuffer moſt by this exceſs, which is very apt to bring a Gutta Serena.

5. One knows that concubinage has done no hurt, when after a ſubſequent ſleep no languors or wearineſs are felt, but the breath is free and eaſy, the urine of a good colour and conſiſtence, and the whole man briſk and lively.

6. Old men are deſtroyed by indulgences of this kind, which render them heavier, weaker and colder.

SECT. VII. Of the Paſſions.

1. AMONG the paſſions, anger and joy increaſe the perſpiration, but fear and grief diminiſh it; and the other paſſions have the ſame effects in proportion as they partake of the oppoſite natures of thoſe mentioned.

2. HENCE timorous and melancholic perſons are ſubject to obſtructions in the bowels, to hard tumours in ſeveral parts of the body, to hypochondriacal diſorders, and to profuſe cold ſweats; for nothing makes the perſpiration more languid than fear and grief, and nothing makes it more free than chearfulneſs of ſpirit.

3. THE diſtempers which ariſe from the affections of the mind, are not conquered by medicines, but by contrary affections; tho' proper medicines, to promote or diminiſh the perſpiration, may be of ſome ſervice at the ſame time.

4. MODERATE joy diſcharges only what is ſuperfluous by perſpiration; but immode-

rate,

rate, and ſometimes ſudden joy, diſcharges alſo what is uſeful; and, if it continues long, prevents ſleep and diſſipates the ſtrength.

5. FOOD of eaſy digeſtion, which increaſes the perſpiration, cauſes chearfulneſs; but that which is hard to digeſt and leſſens perſpiration, cauſes melancholy.

6. THOSE who perſpire too much, and waſte themſelves through the violence of paſſion, do not recover their former healthy ſtate ſo eaſily as thoſe who perſpire too much from ſtrong exerciſe.

7. THOSE who are eager to win at play ought to play but ſeldom; for if they win frequently, their joy will not let them ſleep, which impairs their health; and if they loſe often, their grief will obſtruct the perſpiration.

8. A MODERATE victory conduces more to health than a glorious one; for every extreme is an enemy to nature.

9. ANY

9. ANY violent affection of the mind is more hurtful to health, than any violent motion of the body.

10. To vary our paſſions, *i. e.* To be ſometimes angry or chearful, and ſometimes fearful or ſad, produces upon the whole a more healthful ſort of perſpiration, than to be always under the influence of the ſame paſſion, tho' ever ſo agreeable.

11. HENCE a man can purſue any ſtudy better under a variety of different paſſions, than under the continuance of one, or without any paſſion at all. A man, for example, cannot purſue any buſineſs above one hour if no paſſion engages him in it; or, if he is engaged by one paſſion only, he cannot attend to it cloſely above four hours; but under a rotation of paſſions, as at games of hazard, where joy for gain is interchanged with grief for loſs, a man may hold out many hours.

HAVING thus ſeen that a large ſtream of ſubtile vapours perpetually flows from the human body, it will be proper, on the other hand, to know that there is a new ſupply of moiſture conſtantly attracted from the air, which, if moderate, is of great uſe towards the preſervation of health, by keeping all the parts of the body ſoft, pliant, and fit for motion. This attraction helps us to explain why the quantity of perſpiration ſhould, from the greater moiſture of the air, be leſs in winter than in ſummer; in rainy weather than in dry; and in the night than in the day. From it alſo we learn the neceſſity of living in a clean houſe, and in a pure dry air, and of covering our bodies well in the night, in order to enjoy a comfortable ſtate of health.

OUR inhalation from the circumambient air is very conſiderable, as we ſee by Keil's obſervations on his fourth table, which ſhew that in one night, while he was aſleep, his body had attracted eighteen ounces of moiſture. It was likeways obſerved by Dr. Li-

nen,

nen, upon a change of weather from clear and dry to moiſt and cloudy, that the inſpiration exceeded the perſpiration. And Dr. Robinſon found, upon the like alteration of weather, that his body grew more weighty, tho' he had taken leſs aliment.

But the moſt valuable treatiſe I have ſeen upon this ſubject, is the inaugural diſſertation of Dr. Jones on the reſorbent veins that accompany and correſpond with the numberleſs arteries through which the perſpiration is diſcharged. This phyſician had his education in the univerſity of Edinburgh, and his firſt eſſay plainly ſhews what extraordinary advances an ingenious young man may make there, as well in the curious as in the uſeful branches of phyſic. And indeed, conſidering the great endowments of the preſent profeſſors, their aſſiduous attention to their reſpective departments, and the advantage of a magnificent infirmary, where, in the preſence of the ſtudents, phyſic and ſurgery are practiſed with uncommon ſucceſs, and the reaſon of that practice explained

plained from the nature and conſtruction of the human body; I may venture to ſay that, *for medical knowledge*, the univerſity of Edinburgh is not inferior to any in Europe.

CHAP. XVII.

Of foreign writers concerning health after Sanctorius, viz. Roder. a Fonſeca, Aurel. Anſelmus, Franc. Ranchinus, Rodolph. Goclenius, Joan. Johnſtonus, Petrus Lotichius, and Bernardin Ramazzini.

THE human body, having been originally contrived with infinite wiſdom, performed its functions perfectly* well at all times, by means of thoſe materials and movements with which it was furniſhed by the hand of the creator, tho' man was ignorant of the mechaniſm by which his own actions were directed, and many ages had elapſed before phyſicians could give any rational account of the animal oeconomy.

* A nullo quidem edocta natura, citraque diſciplinam ea quæ conveniunt efficit. Hipp. de morb. vulg. lib. 6. ſect. 5. aphor. 2.

It is true that Hippocrates, Galen, and others among the ancients, by diligently obſerving the operation of nature, and following her ſteps, have given us excellent practical rules concerning health; but their knowledge of the animal machine was defective, and their reaſoning obſcure.

The nature and quantity of inſenſible perſpiration, diſcovered by Sanctorius, opened to phyſicians a much clearer view into the reaſons and grounds of the rules of health eſtabliſhed by the antients than they had before.

But after Harvey publiſhed his glorious diſcovery of the circulation of the blood about the year 1628, a flood of light (if I may uſe that expreſſion) was poured upon the animal oeconomy, which at once diſpelled the darkneſs wherein it was before involved, demonſtrated the wonderful wiſdom of God in the conſtruction of our frame, and eſtabliſhed a new and rational theory in phyſic, worthy of the human in-

tellect. This diſcovery proved evidently from the mechaniſm of the body, that the rules of health, built upon the obſervation of the antients, and the experiments of Sanctorius, were rational and well founded; and every man that underſtood the ſtructure of his own body, was convinced of the expediency of obſerving them.

THUS the theory of health was greatly improved by the knowledge of the circulation, but the practical rules for preſerving health underwent few alterations, having been founded in nature, and confirmed by the experence of ages long before that diſcovery.

I SHALL touch very lightly on ſome of the foreign authors who have treated of health in the ſeventeenth and eighteenth centuries, and then take notice of the Britiſh writers upon the ſame ſubject.

AND here it is neceſſary to remark that ſeveral authors, who make no extraordinary figure in a *hiſtory of health*, becauſe they added

ded few, or perhaps no new rules to thoſe eſtabliſhed by their predeceſſors, are nevertheleſs very valuable, conſidered ſingly, and may be of great utility to thoſe who read them, by exhibiting a plain and effectual method to ſecure a ſound conſtitution. For it is ſurely of ſmall importance to ſuch as value health, and are willing to obſerve the precepts that lead to it, whether theſe precepts are old or new, provided they be clear and pertinent.

RODERICUS a FONSECA, a Portugueſe of Lisbon, principal profeſſor of phyſic in the univerſity of Piſa, and afterwards of Padua, publiſhed, *anno* 1602, a treatiſe *De tuenda valetudine et producenda vita, ad Ferdinandum Medicem magnum Hetruriæ ducem;* in which he propoſes to conduct the infirm as well as the robuſt to a healthy old age. He declares that he collected his rules from the Greeks and the Arabians, but more particularly from Galen's ſix books of preſerving health. The ſix things neceſſary to human life are by him called

the

the *ſix inſtruments* * by which health is maintained. He was undoubtedly a man of learning and good ſenſe, and has made a judicious collection of uſeful precepts from the antients.

AURELIUS ANSELMUS of Mantua publiſhed his *Gerocomica ſive de ſenum regimine, anno* 1606. He was chief phyſician to the duke of Mantua, tho' but a young man, and declares that he writes concerning old age, becauſe it is the only period of life in which a man may be properly ſaid to live, as it excells all other periods in underſtanding and prudence. "Old people "are much obliged to him for his good "opinion of them; but it is obvious that "his rules to direct them muſt be ground-"ed upon the experience of others." To him ſhall be ſubjoined,

FRANCISCUS RANCHINUS, profeſſor at Montpelier, who alſo publiſhed a *Gerocomice de ſenum conſervatione, et ſenilium morbo-*

* Inſtrumenta illa, cum quibus ſervatur ſanitas, diligenter explicanda ſunt: hæc vero ſunt numero ſex, aër, cibus, potus, &c.

rum

rum curatione, anno 1625. It is a very judicious performance, and ſhews the author to have been a man of erudition and good underſtanding.

RODOLPHUS GOCLENIUS, a German phyſician, dedicated a treatiſe *De vita proroganda* to Frederic count Palatine of the Rhine, and Otho Landgrave of Heſſe, *anno* 1608. He collected his materials from ſeveral hiſtorians, philoſophers, and phyſicians, antient and modern; and has illuſtrated his medical precepts with hiſtorical facts, which renders them both uſeful and entertaining.

CLAUDIUS DEODATUS, phyſician to the biſhop of Baſil, publiſhed, *anno* 1628, his *Pantheon Hygiaſticon Hippocraticum Hermeticum, de hominis vita ad centum et viginti annos ſalubriter producenda.* But notwithſtanding the great expectation which he raiſes by this high title, his book (full of the vain boaſts of the chymiſts) is calculated rather to obtrude particular *noſtrums*, than to give prudent rules for the government of health.

JOANNES

JOANNES JONSTONUS, a Poliſh* phyſician of good reputation, addreſſed to a nobleman of that country a treatiſe called *Idea Hygieines recenſita, anno* 1661. He diſcourſes of the *ſix inſtruments* of health, and recites the common rules in a neat Roman ſtile.

SOME authors of this period have taken the trouble to write againſt particular ſorts of food in common uſe. To give but one inſtance, Joannes Petrus Lotichius publiſhed a diſſertation againſt cheeſe, *anno* 1643, entitled *Tractatus medicus philologicus novus de caſei nequitia*, which ſeems to be rather ludicrous than ſerious or valuable.

I SHALL take notice of one foreign performance more, concerning health, becauſe it is ſomewhat different from any that we have hitherto mentioned.

* I thought by his name, that he was a Scots man, but found my miſtake in the following paragraph: "Non ingratum tibi et reliquæ nobilitati futurum, ſi me patriis laribus "reſtituerem, redditâ tandem, per Sueci regis mortem, pace."

IN

In the year 1710, Bernardin Ramazzini principal profeſſor of phyſic in the univerſity of Padua, publiſhed a book, for the uſe of Raynald duke of Modena, entitled *De principum valetudine tuenda commentatio*. The health of a good prince, ſays he, is the greateſt bleſſing imaginable to the public. And this he confirms by the example of the Romans, who fell into the utmoſt grief and conſternation upon hearing that Germanicus was dangerouſly ill at Antioch; and preſently, upon a ſudden report that he grew better, ran with exceſs of joy into the capitol, burſting the doors and crying out, *Rome is ſafe, our country is happy, Germanicus lives!* But ſoon after, when they were aſſured that he was dead, gave way to their fury, broke down the temples of the gods, overturned their altars, and threw the guardian deities of Rome into the ſtreets.

A Prince who regards his health, continues he, ſhould permit his phyſician to remind him of the following particulars:

1. He

1. He ſhould be put in mind of the annual changes of the ſeaſons, that his cloaths, palace, furniture, and method of living may be adapted to them.

2. He ſhould be advertiſed when any epidemical diſtemper begins to ſpread, that he may remove into a more healthy air.

3. As the variety of delicacies, which cover the tables of princes, is a great temptation to exceſs, they ſhould be exhorted to partake of a moderate quantity of ſuch things only as they know by experience to agree with their conſtitution.

4. Princes ſhould not be fatigued with buſineſs ſoon after dinner, nor with any buſineſs at all after ſupper, but ſhould follow the example of Auguſtus Cæſar, who would neither read nor write letters after ſupper, leſt they ſhould diſturb his ſleep.

5. It is ſhameful in a prince to be a drunkard, and thereby become the jeſt of the

the mob; as Claudius Tiberius Nero was in deriſion called *Caldius Biberius Mero*. Let princes imitate Julius Cæſar, who, as Suetonius informs us, *vini parciſſimus fuit;* and Auguſtus, who rarely drank above three glaſſes after ſupper.

6. MANLY exerciſes, ſuitable to their high rank, according to the cuſtom of the country, and eſpecially riding on horſeback, ſhould be recommended to princes. They ſhould alſo indulge themſelves in other innocent and genteel recreations, and never fail to admit young people to partake of their diverſions.

7. THE conſtitution of the prince ſhould be carefully ſtudied, and well underſtood by his phyſician; and his diet, exerciſe, and evacuations ought to be regulated accordingly.

8. NO man is ignorant of the bad effects which violent paſſions produce in the human body. Anger, fear, grief, and even exceſſive joy, have been the cauſes of death

to many. And princes are ſo far from having any right of exemption from theſe paſſions, that they are generally more expoſed to them than any of their ſubjects. "Let a man read (ſays our author) the for-"ty-fifth* chapter of the ſeventh book of "Pliny's natural hiſtory, and when he has "conſidered the many misfortunes, dan-"gers, terrors, and real calamities which "Auguſtus encountered, let him honeſtly "declare whether or not he envies that "exalted ruler of the world." It ſhould therefore be the phyſician's ſtudy to know what paſſions his prince is moſt prone to, that, in the favourable moments of good humour, he may reſpectfully recommend a diet and regimen proper to ſubdue thoſe enormities.

* Pliny there mentions the vexations Auguſtus met with from his worthleſs aſſociates, Lepidus and Mark Antony. The neceſſity of concealing himſelf for three days in a ditch, after a defeat. Seditions and mutinies in the army. Hatred of baniſhed citizens. Snares laid to take his life away. Treachery and wickedneſs of his own family and friends. Peſtilence and famine in Italy. A fixed reſolution to die, in conſequence of which he faſted four days, whereby he was brought to death's door. And, at laſt, the mortification of leaving the ſon of his enemy his heir, and ſucceſſor to the empire.

CHAP. XVIII.

Of the Britiſh writers on health, viz. *Sir Thomas Elliot, Thomas Morgan, Edmund Hollyngs, William Vaughan, Thomas Venner, Andrew Boorde, Edward Maynwaring, Thomas Phayer, William Buleyn, Francis Fuller, Dr. Wainwright, Dr. Welſted, Dr. Burton, Dr. Arbuthnot, Dr. Lynche, and Dr. Mead.*

IN the reign of Henry VIII. Sir Thomas Elliot, a learned knight, wrote a treatiſe which he calls *The caſtle of health.* He was not bred a phyſician *, but was undoubtedly acquainted with ſome of their beſt books. He explains and recommends the precepts of Diocles to king Antigonus; and has judiciouſly collected ſeveral uſeful

* "Altho' I have never been at Montpelier, Padua, or "Salerno, ſays Sir Thomas, yet I have ſomething in phyſic "whereby I have taken no little profit concerning mine own "health. If the phyſicians be angry that I have written "phyſic in Engliſh, let them remember that the Greeks wrote "in Greek, the Romans in Latin, and the Arabians in Ara-"bic. Nor have I written for glory, reward, or promotion, "God is my judge."

rules

rules of health from the ancients. He was ſo great an admirer of Galen, that (according to the taſte of thoſe times) he has followed him cloſe through his perplexed diſtinction of things into *natural*, *non-natural*, and *contrary to nature*; and has illuſtrated every branch of that fantaſtical diviſion. He has alſo interſperſed ſome prudent remarks of his own. He obſerves, for inſtance, that moderation in ſleep muſt be meaſured by health, ſickneſs, age, conſtitution, fulneſs, and emptineſs, ſince each of theſe requires a different proportion of reſt. And ſpeaking of the paſſions, he ſays, "if they be immoderate, they do not on-"ly annoy the body and ſhorten life, but "alſo impair, and ſometimes utterly de-"ſtroy a man's eſtimation."

THOMAS MORGAN publiſhed his *Haven of health* about the cloſe of the ſixteenth century. He had his education at Oxford, but ſeems not to have been a regular* phy-

* Speaking of the black aſſizes at Oxford, which happened in July 1577. It is my opinion, ſays he, that "this diſ-"eaſe (be it ſpoken without offence of the learned phyſicians) "was a *febris ardens*."

ſician.

ſician. His rules of health are taken for the moſt part from Hippocrates and Galen, eſpecially from the latter. He treats of exerciſe particularly, in a conciſe and maſterly manner, blending his own obſervations with the precepts of the ancients.

As " flowing water (ſays he) does not " corrupt, but that which ſtandeth ſtill; " even ſo animal bodies exerciſed are for " the greateſt part healthful; and ſuch as " be idle are ſubject to ſickneſs. Some ex- " erciſes are appropriated to different parts " of the human body; as running and " walking for the legs and thighs; ſhoot- " ing with bows and arrows for the arms; " ſtooping and riſing at bowls for the " back and loins; ſinging and reading a- " loud for the lungs. The muſcles are " exerciſed by all their reſpective motions, " and ſo are the veins and arteries which " run through them. Geſtation is alſo " excellent, eſpecially for the tender. But " tennis is preferable to every other exer- " ciſe, becauſe it may be uſed by all, and at

" a

" a ſmall charge, and principally, becauſe
" it exerciſes every part of the body, as
" head, eyes, neck, back, loins, arms, and
" legs, and at the ſame time delights the
" mind; all which advantages can be
" found in no other exerciſe whatſoever.
" Wherefore the founders of colleges are
" highly to be praiſed, who have erected
" tennis courts for the exerciſe of their
" ſcholars. But let them follow the pru-
" dent rule of Hippocrates, by uſing exer-
" ciſe before meals; for it is hurtful im-
" mediately after a full meal, tho' that is
" the common practice in ſchools and
" colleges, which makes lads break out in-
" to cutaneous eruptions, and boils."

THE exerciſe of the mind is likewiſe neceſſary to the health.

To watch and ſtudy at night is to ſtrive againſt nature, and by contrary motions to impair the vigour both of body and mind. " Alfred, (continues our author)
" who founded Univerſity College in Ox-
" ford, divided his time nobly, ſpending
" eight hours of the four and twenty

" in

" in eating, drinking, and ſleeping; eight " in hearing and deciding cauſes; and " eight in ſtudy." I ſhall mention but one more of his obſervations, *viz.* As ſuck is to infants, ſo is wine, moderately drank, to the aged, and is therefore called old mens milk.

OUR next treatiſe is, *Edmundi Hollyngi, Eboraceni Angli, doctoris medici et profeſſoris Ingolſtadiani, de ſalubri ſtudioſorum victu, hoc eſt, de literatorum omnium valetudine conſervanda, vitaque diutiſſime producenda, libellus*, publiſhed *anno* 1602, and dedicated to Maximilian Count Palatine of the Rhine, and duke of both the Bavarias, to whom he was recommended by cardinal Alan*. He writes, in a conciſe and elegant manner, of air, aliment, exerciſe, *&c.* " thoſe " ſix things† (as he calls them) indiſpen-

* Illuſtriſſimo olim Angliæ Cardinali Alano Serenitati veſtræ commendatus, cujus gaudeo munificentiâ non vulgari.

† Præceptiones ad ſex capita revocavi, prout ſex ſunt res quæ in omni vita aut prodeſſe ſolent, aut obeſſe: nempe aër, cibus ac potus, ſomnus et vigilia, motus et quies, excernenda ac retinenda, et animi accidentia.

" ſably

" ſably neceſſary to every man's life, which
" promote health, or create diſtempers,
" according to the good or bad uſe that is
" made of them."

WILLIAM VAUGHAN wrote his *Directions for health, anno* 1607. He makes an apology for intruding * into other mens buſineſs, as he was no profeſſed phyſician. He treats his ſubject by way of queſtion and anſwer, and writes with a good deal of humour and ſmartneſs. " How ſhall toſs-
" pots and ſwill-bowls (ſays he) be made
" to hate wine?" He anſwers this queſtion by aſking another: " Look on the coun-
" tenance of a drunkard, and is it not diſ-
" figured? Does not his noſe ſeem rotten,
" withered, or worm-eaten? Does not his breath ſtink, his tongue faulter? Is
" not his body crazy, and ſubject to gouts
" and dropſies?"

* " For all that I am not a practitioner in this noble ſci-
" ence, yet my chiefeſt pleaſure, ever ſince my childhood, has
" been to read books of phyſic, in regard of my own health.
" Sir Thomas Elliot, a learned knight in king Henry VIII.'s
" days, was no practitioner, yet wrote on this very ſubject."

IN

In another place he ſays, that intemperance in eating as well as in drinking, deſtroys the faculties of the mind; "for "how is it poſſible that the ſmoaky va- "pours, which breathe from a fat and full "paunch, ſhould not interpoſe a thick miſt "of dulneſs between the body, and the "body's light!"

Thomas Venner, doctor of phyſic at Bath in the ſpring and fall, and at other times near Bridgewater, publiſhed his *Via recta ad vitam longam*, about the year 1620, which he addreſſed to Francis Lord Verulam. The principal aim of this performance was to recommend Bath, or the true uſe (as he ſays) of the baths of Bath, but he treats alſo of air, aliment, *&c.* He ſeems to have been an honeſt well meaning man, but very formal and prolix in expreſſing his mind when he writes in Engliſh; and a great admirer of Galen's diviſions and diſtinctions, which he diſplays on all occaſions; and tho' his book is for the moſt part written in his own language, he takes

care to convey his favourite ſentiments * conciſely enough in Latin.

He informs us, that the Bath waters were not, in his time, preſcribed inwardly by any regular phyſician, becauſe from their bituminous and ſulphureous nature, they relax and weaken the ſtomach; but he owns that the meaner ſort of people, by the perſuaſion of the Bath guides, uſed to drink a large draught of the water, with ſalt in it, to prepare them for the external uſe of the ſame water in bathing. He ranges different waters, according to their reſpective degrees of goodneſs in the following order: *viz.* 1. Fountain water. 2. Rain water. 3. River water. 4. Well water. 5. Water conveyed through lea-

* Regulæ ad conſervationem vitæ ſaluberrimæ. 1. Aërem purum, ſuavesque odores ſpirare. 2. Cibum adverſante ſtomacho non ingerere. 3. Cibos naturâ et coctione multum diſcrepantes non aſſumere. 4. Ad ſaturitatem nunquam edere et bibere. 5. Ventrem modicè laxum habere. 6. Veris initio corpus pharmacò conveniente purgare. 7. Veneris illecebras, ejuſque uſum immoderatum, tanquam peſtem, fugere. 8. Vitam probam et incorruptam degere.

den

den pipes, which may be mended by boiling. 6. Standing water. 7. Water taken up near the ſea ſhore, which is of a ſtinking ſmell and unpleaſant ſavour.

ANDREW BOORDE, doctor of phyſic, publiſhed, *anno* 1643, his *Compendious regimen*, or *Dietary of health*, made in Montpelier, which he dedicated to *The armipotent and valiant lord, Thomas duke of Norfolk.* Beſides the common cautions with regard to air, aliment, *&c.* he obſerves that tranquillity of mind is neceſſary to health, and that in order to preſerve ſuch a tranquillity, a man muſt be frugal. He therefore ſeriouſly recommends good oeconomy in the following words: "He that will ſpend "more in his houſe than the rents of his "lands or his gains bring in, will come to "poverty. He ſhould therefore divide his "rents or income into three parts: The firſt "to provide for meat and drink; the ſe-"cond for apparel, ſervants wages, alms, "and other deeds of mercy; and the third "ſhould

" ſhould be reſerved for urgent caſes in time
" of need, as ſickneſs, repairs, and caſual
" expences; otherwiſe he may fall in debt,
" and then his mind cannot be quiet; and
" the perturbation of the heart ſhortens
" a man's life."

SPEAKING of the different ſorts of meat and drink in common uſe, he obſerves that they who put any thing to ale beſides water, malt, barm, and godſgood, do ſophiſticate and ſpoil it; and that ale ſhould be drank freſh and clear, and neither too old nor too new.

Doctor Edward Maynwaring publiſhed his *Tutela ſanitatis*, or *Hygiaſtick precautions and rules*, *anno* 1663. The epiſtle to the reader is written in Latin, but the book in Engliſh.

" It is health (ſays he) that makes your
" bed eaſy, and your ſleep refreſhing; that
" renews your ſtrength with the riſing
" ſun; that fills up the hollows, and une-

" ven

" ven places of your carcaſe, and makes
" you plump and comely, and adorns your
" face with her choiceſt colours; that
" makes your exerciſe a ſport; that in-
" creaſes the natural endowments of your
" mind, and makes the ſoul to take de-
" light in her manſion."

He has treated of Galen's *ſix non-naturals* in a ſhort and perſpicuous manner, and has added a ſeventh to them, *viz.* Cuſtoms or habits voluntarily contracted by many, which prove uſeful or detrimental to health, according as they are good or bad, and which ſhould therefore be indulged, or gradually corrected.

About this time, or rather earlier, Thomas Phayer wrote his *Regimen of life*, tranſlated (as he owns) from the French, but amplified by himſelf.

He explains the different temperaments of people, namely, the ſanguine, phlegmatic, choleric, and melancholic, pretty accurately;

cutately; but I cannot ſay, that there is any thing extraordinary in his performance.

WILLIAM BULLEYN, in his *Government of health*, introduces John, who is a man of pleaſure, diſputing with Humphry, who is an advocate for temperance; but there is nothing very uſeful or entertaining in their converſation.

SOON after the commencement of the eighteenth century, Francis Fuller, M. A. publiſhed his *Medicina gymnaſtica;* and tho' his aim was to recommend exerciſe as the principal remedy in a *conſumption*, *dropſy*, and *hypochondriacal diſorders*, yet there are ſo many hints, conducive to the preſervation of health, ſcattered through this valuable treatiſe, that, to them who ſtudy what is ſalutary, the peruſal of it will afford both inſtruction and amuſement.

HE has from reaſon and experience demonſtrated the good effects of riding on horſeback, (which is quite as uſeful to preſerve,

ſerve, as to recover health) and is perhaps the fulleſt and beſt author we have on that article.

FRICTION, or the fleſh bruſh, he has likewiſe treated of very accurately, which is of great uſe to preſerve health. "It is "very ſtrange (ſays he) that this exerciſe "of chafing the skin, which was in ſuch "univerſal requeſt among the antients, "and which they put in practice almoſt "every day, ſhould be ſo totally neglected "and ſlighted by us, eſpecially when we "conſider that their experience agrees ſo "exactly with our modern diſcoveries in "the oeconomy of nature."

Dr. Wainwright's *mechanical account of air and diet*, was publiſhed *anno* 1708; and tho' his chief deſign was to ſhew the neceſſity of mathematical knowledge to the rational practice of phyſic, yet, by the way, he mentions ſome precepts relating to the preſervation of health, under thoſe

two heads of *air* and *diet*; and we are much obliged to him for demonſtrating the reaſonableneſs and utility of his precepts by proper calculations and experiments. He proves that air too denſe, or too much rarified, is hurtful to animals, and conſequently that the higheſt hills, as well as the loweſt vallies are unhealthy. He demonſtrates that a human body, of a middle ſize, ſupports a weight of near a tun and an half of air when the mercury riſes to *thirty inches* in the barometer, more than it does when the mercury falls to *twenty-ſeven* inches; which muſt have a conſiderable effect on the motion of the blood and humours. He obſerves that an air, too moiſt, and filled with vapours, whereby its ſpring is weakened, relaxes the fibres of the body, and obſtructs the pores; whence it happens that agues are ſo epidemical in the fens of Cambridgeſhire, and the Hundreds of Eſſex.

With regard to *diet*, he ſhews that a healthy man has certainly exceeded in the quantity of his food, if he finds himſelf

ſhort

ſhort breathed, or ſleepy immediately after meals; becauſe it is evident from thoſe ſymptoms, that the ſtomach is too much diſtended, and preſſes upon the *diaphragm*, which ſtraitens the *thorax*; and upon the ſuperior trunk of the *vena cava*, which hinders the free return of the blood from the head.

He has alſo proved, by calculating the preſſure of water upon the ſurface of the human body, and by ſhewing the neceſſary conſequences of ſuch a preſſure, that "bathing is not to be practiſed raſhly "without good advice and proper precau-"tions;" tho' it has been the ancient practice * of the Jews and Romans, not only as a cure of ſeveral diſtempers, but alſo for cleanlineſs and delight.

Dr. Welsted, in his elegant treatiſe *De ætate vergente*, publiſhed *anno* 1724, re-

* Bathing is alſo the modern practice of ſeveral nations, eſpecially of the Egyptians, where the women uſe it, at a great expence, to make them plump and comely, and the men for coolneſs and health. See Proſp. Alp de med. Ægyp. lib. 3. cap. 15.

commends the following excellent rules to be carefully obſerved by old people.

1. To be cautious how they change an old cuſtom ſuddenly, tho' the change, at firſt ſight, ſhould appear commodious; for their ſtrength is not, like that of youth, able to ſtruggle with, or break through a habit which the practice of many years has rendred familiar.

2. To avoid ſuch things as they found by experience to have been detrimental to their health in the former part of their lives; for how ſhould they bear, now when they are feeble, what in their full ſtrength they could not ſupport?

3. Let their food and drink be ſuch as will give no diſturbance either to their ſtomach or to their head. Or, in caſe they have exceeded by accident, let the exceſs be immediately diſcharged.

4. Let their appetite be kept as good, and their ſecretions as regular as poſſible.

5. Let

5. LET their minds be eaſy and chearful: But this charming ſerenity is obtained by thoſe only whoſe age, after a life ſpent in doing good, affords a retroſpect of complacency, and a proſpect of happineſs.

DR. BURTON's book of the *Non-naturals*, in which "the great influence they "have on human bodies is ſet furth," was publiſhed *anno* 1738. And tho' the author's principal ſcope is to ſhew the ſubſerviency of a thorough acquaintance with the nature and properties of air, aliment, *&c.* to the ſucceſsful practice of phyſic, and particularly to the cure of epidemical diſtempers; yet thoſe who ſtudy to preſerve health are much obliged to him for ſeveral uſeful precepts and judicious reflections on that ſubject, which are to be met with in his treatiſe. He obſerves,

1. FOR inſtance, that "in the ſpring "the air being impregnated with the ſa-"lubrious effluvia of opening flowers, will "be more refreſhing than the autumnal

"air

" air loaded with ſteams of putrifying ve-
" getables, which, unleſs diſperſed by winds
" frequent at that ſeaſon, would ſoon pro-
" duce fatal effects."

2. SPEAKING of aliment, he takes notice of the error of thoſe " who drink too " ſmall a quantity of cooling diluting li-" quors in proportion to their ſolid food; " by which miſtake the blood becomes " thick, the ſecretions are diminiſhed, and " the ſaline particles, for want of a watery " fluid to ſeparate them, cluſter together, " and corrode the capillary veſſels." And

3. HE recommends exerciſe, from the common obſervation, that the parts, or limbs of the body, which labour moſt, are larger and ſtronger than thoſe which have leſs exerciſe. Thus the legs and feet of a chairman, the arms and hands of watermen and ſailors, the backs and ſhoulders of porters, by long uſe grow thick, ſtrong, and brawny.

NEAR the ſame time was written an *Eſſay concerning the effects of air on human bodies*, compoſed by the learned and ingenious Dr. Arbuthnot. After having, with great judgment and accuracy, given us a moſt curious account of the *contents*, *properties*, *qualities*, and *nature* of *air*, in *different ſeaſons* and *ſituations*; and of the influence it has on human conſtitutions and diſeaſes; our author draws many uſeful practical aphoriſms from the whole; of which the following well deſerve the attention of thoſe who are ſtudious to preſerve their health.

1. EVERY human creature, whoſe manner of life demands, and whoſe conſtitution can bear it, ought to inure himſelf to the outward air in different ſorts of weather.

2. IN the choice of habitations for mankind, the wholeſomeneſs of the air is a principal conſideration, and is as much a particular in the purchaſe of a ſeat as the ſoil.

3. THE

3. The local qualities of the air depend upon the exhalations of the ſoil, and of its neighbourhood, which may be brought thither by the winds: For a gravelly ſituation may be rendered ſickly by a neighbouring marſh.

4. The qualities of the ſprings are a mark of thoſe of the air; for the air and water imbibe the ſaline and mineral exhalations of the ground; therefore where the water is ſweet and good, it is probable that the air is ſo likewwiſe. But the beſt mark of the wholeſomeneſs of the air is the cuſtomary longevity of the inhabitants.

5. Dampness of wainſcot, rotting of furniture, tarniſhing of metals, ruſting of iron, efflorescence of ſalts upon bodies, diſcolorations of ſilks and linen, are marks of ſalts of an unuſual nature or quality in the air.

6. The air of cities is unfriendly to infants and children: For every animal being by nature adapted to the uſe of freſh and free

free air, the tolerance of air replete with ſulphureous ſteams of fuel, and the perſpirable matter of animals (as that of cities) is the effect of habit, which young creatures have not yet acquired.

7. THE firſt care in building cities, is to make them airy and well perflated; becauſe infectious diſtempers muſt neceſſarily be propagated amongſt mankind living too cloſe together. The air is alſo extremely tainted by having *burial places* within the precincts of great cities.

8. PRIVATE houſes ought to be perflated once every day, by opening doors and windows to blow off the animal ſteams. Houſes, for the ſake of warmth, fenced from wind, and where the carpenter's work is ſo nice as to exclude all outward air, are not healthy; for people who paſs moſt of their time in air tainted with ſteams of animals, fire, and candles, are frequently infected with nervous diſtempers.

THE

THE next performance relating to our ſubject, that has come to my hands, is Dr. Barnard Lynche's *Guide to health thro' the various ſtages of life*, printed 1744. In the firſt part of his book, beſides clearing up the different changes in the life of man, and the unavoidable cauſes of decrepitude and death, our author has given us, from the ſacred ſcriptures, from Pliny, and other hiſtorians, a well atteſted account of the longevity of ſeveral ſober and regular perſons in various ages of the world; which examples teach thoſe, who deſire long life, the neceſſity of temperance more effectually than they can be taught by precepts.

AND in the ſecond part, his *Analyſis of air, aliment, and the other non-naturals*, is full and perſpicuous. He has explained their reſpective natures and properties according to the theory of the moſt celebrated modern phyſicians; and has given us ſeveral uſeful precepts of health, together with the reaſons for enjoining them, in a diſtinct and ingenious

ingenious manner, which merit our particular attention. He ſhews, for inſtance, "that the more of a ſulphureous or chymical oil any diſtilled ſpirit contains, the more pernicious it proves to the human body, becauſe it is harder to be waſhed away by the blood; therefore brandy* is more eaſily carried off than rum; and Geneva than aniſe-ſeed water."

2. To recommend moderate ſleep, he obſerves that we may look upon the time of waking as the time of wearing out the animal fabric; and the time of ſleep as that in which it is repaired and recruited; for, in action, ſomething is continually abraded from the fibres which cannot otherwiſe be reſtored than by their reſt from tenſion, and by the regular and ſteady courſe of the blood in ſleep, which is proper for nouriſhment, or an appoſition of parts to the waſted veſſels.

* This opinion muſt reſt upon the experience of thoſe who accuſtom themſelves to ſuch liquors, which, if frequently uſed, are all pernicious.

3. In deſcribing the juſt meaſure of exerciſe, he ſays, that thoſe who are lean ſhould continue their exerciſe only *ad ruborem*, or till the body is gently heated, for that will fatten them; but they who are fat, may continue it *ad ſudorem*, becauſe ſweating will help to extenuate the body.

4. SPEAKING of the ſaliva or ſpittle, he takes notice, that they who, immediately after eating, fall to ſmoking or chewing tobacco, commit two deſtructive errors: 1. In diverting the ſaliva from its natural office; and ſpitting out that fluid which ſo greatly contributes to digeſtion. 2. In uſing that ſtupifying *American Henbane*, or opiate, which numbs the nerves and deſtroys the appetite. To conclude, this author merits our eſteem for his love and recommendation of virtue and piety.

THE laſt of the Britiſh authors that has touched this ſubject is Dr. Mead, who has done honour to our country by his deep knowledge in phyſic, by his refined taſte in

the

the polite arts, and by his unbounded benevolence and generoſity to men of merit.

THIS great phyſician has cloſed his book, entitled *Monita et præcepta medica*, publiſhed *anno* 1751, with ſeveral excellent rules and remarks concerning the preſervation of health, ſome of which he took from his favourite *Celſus*, and ſome from his own obſervation. Of the latter are theſe:

1. A man who has eat a large meal, eſpecially of high ſeaſoned food, will receive benefit from drinking after it a draught of cold water with ſome juice of lemon, or elixir of vitriol, to aſſiſt his digeſtion.

2. OLD men ſhould retrench a little of their ſolid food, and make a proportionable addition to their drink.

3. They ſhould alſo be well rubbed with a fleſh bruſh every morning, to ſupply that exerciſe which, for want of ſtrength, they cannot uſe, tho' their health requires it.

4. THE

4. THE frigidity of men advanced in years, is a faithful monitor, that points out to them the folly of forcing themſelves to exert a vigour which they have loſt, vainly expecting raptures, but finding only an irkſome labour * that will ſhorten their days.

5. NOTHING can be more deteſtable, or more pernicious to health, than for a man to *commit lewdneſs on himſelf*.

6. THE gifts of providence, which contribute to health, and the real happineſs of life, are more equally diſtributed than we are willing to believe; and perhaps a larger ſhare of them is poſſeſſed by men of low degree, than by thoſe of high rank or great affluence. Moderate labour ſupplies a poor man with wholeſome food, and at the ſame

* It ſhould ſeem that the author had his eye on theſe lines of Virgil, Geor. 3. v. 97.

——————. ——— fruſtraque laborem
Ingratum trahit: et, ſi quando ad prælia ventum eſt,
Ut quondam in ſtipulis magnus ſine viribus ignis,
Incaſſum furit. ———

time

time gives him an appetite to reliſh, and ſtrength to digeſt it; without goading his luſt or inflaming his paſſions. His ſleep is ſound and refreſhing, undiſturbed with corroding cares: And his healthy and hardy offspring nurſed up in temperance, ſoon grows fit to partake of that labour which made the parents happy. How different are the effects produced by the ſloth and luxury of the rich! To enable them to eat, their ſtomachs require high ſauces which heat and corrupt their blood, pamper their vicious inclinations, and render them obnoxious to various diſeaſes. The exceſs of the day deſtroys the ſleep of the night. Their children are tainted in their mother's womb, with diſtempers which afflict their whole lives, and hardly permit them, diſeaſed and decrepid, to arrive at the threſhold of old age. Beſides, an anxiety to obtain honours and titles perpetually harraſſes their weak minds, and the felicity of enjoying what they poſſeſs, is forfeited by the reſtleſs deſire of getting more.

7. Next

7. NEXT to temperance, the ſureſt means to keep the affections of the mind in due ſubjection to reaſon is, to aſſociate with wiſe * and good men, whoſe converſation and example is very prevalent in regulating the paſſions, which, unleſs they are taught to obey, will be ſure to grow headſtrong and imperious.

* Euripides was of the ſame opinion: "The wiſe (ſaid "he) will become more wiſe, by frequently converſing with "the wiſe."

PART II.

Containing a ſuccinct review of the moſt important rules recommended by phyſicians and philoſophers for the preſervation of health: Together with a ſketch of the reaſons whereon theſe rules are founded, drawn from the mechaniſm of the human body.

PART II.

CHAP. I.

Exhibits a ſhort view of concoction, or the mechaniſm by which our aliment is digeſted; and of the circulation of the blood; from which it will be obvious to perceive the ground and reaſon of the rules laid down for the preſervation of health, and the expediency of obſerving them.

THE art of preſerving health promiſes three things: *Firſt*, To ſecure or maintain the health which a man enjoys at preſent. *Secondly*, To prevent approaching diſtempers. *Thirdly*, To prolong life. Of all which I ſhall treat in the order here mentioned.

THE firſt of theſe, in a great meaſure, includes the other two, becauſe a diligent obſervation of the rules proper to preſerve health, will, for the moſt part, prevent approaching diſtempers; and diſpoſe the body to longevity. The firſt, therefore, requires to be treated of more largely than

either of the other articles. But to ſet it in a clear light we muſt previouſly deſcribe ſome parts of the animal ſtructure and oeconomy, from which we may readily perceive the reaſon of the rules recommended to preſerve health, and the neceſſity of putting them in practice.

And here we may, with pleaſure, remark a ſurpriſing agreement and harmony between the ſucceſsful practice of the ancients, directed only by their aſſiduous obſervation of nature, and the mechanical theory of the moderns, founded upon the wonderful ſtructure of our ſolids, and the perpetual rotation of our fluids, with which the ancients were unacquainted.

Anatomy diſcovers ten thouſand beauties in the human fabrick, which I have no room to mention here; nor is it poſſible, in a performance of this kind, to deſcribe the geometrical accuracy with which the author of nature has formed every part of the body to carry on the animal oeconomy,

or anſwer the various purpoſes of life. All I propoſe in this place is, by touching upon a few particulars, to give thoſe who are unacquainted with our profeſſion, a general idea of the ſtructure of their own bodies, from which they will eaſily apprehend, that intemperance, ſloth, and ſeveral other vices and errors, have a neceſſary and mechanical tendency to deſtroy health. To this end it will be indiſpenſably requiſite to give ſome account of concoction, or the mechaniſm by which our aliment is digeſted; and then to take notice of the circulation of the blood, with ſome of its neceſſary conſequences.

Of CONCOCTION.

AMONG all the wiſe contrivances obſerved in the human fabric, none can excite our attention and admiration more than the diſpoſition and mechaniſm of thoſe parts, by which our aliment is concocted, or fitted for our daily ſupport and nouriſhment. To have a clear idea of the manner in which concoction is performed, we

muſt

muſt diſtinguiſh it into three ſtages. The firſt ſtage is performed in the progreſs of the aliment from the mouth down to the lacteal veins*. The ſecond is performed in the paſſage of the milky liquor, called chyle, through the lacteal veſſels to the loins, and then up to where it mingles with the blood, under the collar-bone. The third or ultimate concoction is performed by the circulation of the blood and chyle together through the lungs, and the whole arterial ſyſtem. In all theſe ſtages, the deſign of the great architect has evidently been to grind and diſſolve the aliment, and to mix and incorporate it with a large quantity of animal juices already prepared, in ſuch a manner as to reduce it at laſt to the very ſame ſubſtance with our blood and humours. How wonderfully and completely this deſign has been executed we ſhall ſee preſently.

In the firſt ſtage of concoction, by a curious configuration of parts, and action of

* The lacteal, or milky veins, are ſmall veſſels, that receive the chyle from the inteſtines.

muſcles,

muſcles*, adapted to their reſpective functions, our food is ground ſmall by the teeth, and moiſtened by a copious ſaliva † in the mouth. It is in the next place ſwallowed, and conveyed down the gullet, where it is farther mollified and lubricated by a viſcid unctious humour, diſtilled from the glands of that canal. From thence it ſlips into the ſtomach, where ſeveral cauſes concur towards its more complete diſſolution. It is diluted by the juices, it is ſwelled and

* Vid. Boerh. inſtit. ſect. 58. et ſeq.

Boerhaave has given a fuller and clearer view of the animal oeconomy than any other man ever did. His inſtitutions contain an accurate deſcription of all the principal actions performed in the human body, deduced in the moſt conſequential order that can be imagined; and intelligible to thoſe who are previouſly acquainted with all the branches of anatomy. But this book was calculated for phyſicians only; and no man probably of any other profeſſion will ever take the pains to underſtand it.

N. B. A muſcle is a maſs or collection of fibres, of different dimenſions, by which all the motions of every part of the body are performed.

† The ſaliva, or ſpittle, is a pure, pellucid, penetrating humour, containing oil, ſalt, water, and ſpirit, ſtraining from the arterial blood, and very uſeful in digeſtion; and therefore the habitual and immoderate diſcharge of it, in chewing and ſmoking tobacco, muſt be of bad conſequence.

ſubtilized

ſubtilized by the internal air, and it is macerated and diſſolved by the heat which it meets with in that cavity. It is alſo agitated and attenuated by the perpetual friction of the coats of the ſtomach, and the pulſation of the arteries there; by the alternate elevation and depreſſion of the diaphragm* in breathing; and by the compreſſion of the ſtrong muſcles of the belly. And after a proper ſtay, it is gradually propelled into the inteſtines, in the form of a thick, ſmooth, uniform, aſh-coloured fluid.

When our aliment, thus prepared, arrives at the inteſtines, it is there mixed with three different ſorts of liquor. It receives two ſorts of bile†; the one thick, yellow, and extremely bitter, from the gall-

* The diaphragm or midrif, is a very large tranſverſe muſcle, which ſeparates the thorax or cheſt from the abdomen or belly, and ſqueezes the contents of the ſtomach and inteſtines.

† The bile or gall is the principal diſſolvent of the aliment, and when it is vitiated or defective, there can be no good digeſtion.

bladder;

bladder; the other ſcarce yellow, or bitter, but in a much larger quantity, from the liver. The third liquor, that falls here upon the aliment, iſſues plentifully from a large glandular ſubſtance, ſituated beneath the ſtomach, called the pancreas or ſweet bread, and is a limpid, mild fluid, like the ſaliva, which ſerves to dilute and ſweeten what may be too ſpiſs and acrimonious. The two ſaponaceous biles reſolve and attenuate viſcid ſubſtances; incorporate oily fluids with aqueous, making the whole mixture homogeneous; and by their penetrating and detergent qualities render the chyle fit to enter the lacteal veins, into which it is conveyed partly by the abſorbent nature of theſe veins, and partly by the periſtaltic * motion of the inteſtines.

IF we now conſider the change which our aliment has undergone in the mouth,

* Periſtaltic (from περιστέλλω, *contraho*) is that vermicular motion of the inteſtines, produced by the alternate and progreſſive contraction and dilatation of their ſpiral and orbicular fibres, which preſſes the chyle into the lacteals, and anſwers many other good purpoſes.

gullet,

gullet, and ſtomach, together with the large quantity of bile and pancreatic juice poured upon it in the inteſtines: And if we reflect alſo on the inceſſant action of the muſcles, blending, churning, and incorporating the whole, we ſhall readily perceive, that their united agency muſt alter the particular taſtes, flavours, and properties of our different kinds of food, in ſuch a manner as to bring the chyle nearer in its nature to our animal juices, than to the original ſubſtances from which it was formed. Our aliment thus changed into chyle, conſtitutes the firſt ſtage of concoction; and we ſhall find the ſame aſſimilation carried on through the ſecond.

THE ſecond ſtage of concoction begins with the ſlender lacteal veins, where they ariſe from the inteſtines by an innumerable multitude of inviſible pores, through which the fine, white, fluid part of the chyle is ſtrained or abſorbed; while, at the ſame time, the groſs, yellow, fibrous part, conveyed ſlowly forward, and farther attenu-

ated

ated in the long inteſtinal tube, is perpetually preſſed and drained of its remaining chyle, until the dregs, becoming at laſt uſeleſs, are ejected out of the body.

THESE lacteal veins iſſue from the inteſtines in various directions, now ſtraight and now oblique, often uniting and growing larger, but preſently ſeparating again. They frequently meet at ſharp angles, and enter into ſoft glands, diſperſed through the meſentery *, from which they proceed larger than before, and more turgid, with a fine lymphatic fluid. In moſt places alſo they run contiguous with the meſenteric arteries, by whoſe pulſation their load is puſhed forward. And thus, after various communications, ſeparations and protruſions, the lacteal veins pour their chyle into a ſort of ciſtern † or reſervoir formed

* The meſentery is that ſtrong double membrane within which the inteſtines are convolved, and is interſperſed with innumerable glands, nerves, arteries, lacteal and lymphatic veſſels.

† This ciſtern (as anatomiſts call it) is often found to conſiſt only of ſome large branches of the lacteal veins.

for that purpoſe between the loweſt portion of the diaphragm and the higheſt vertebre of the loins *. It is very remarkable, that theſe veins are furniſhed with proper valves which permit the chyle to move forward, but effectually ſtop its return; and that a great number of veins purely lymphatic, as well as the lacteal, empty themſelves into the ſame ciſtern.

In all this contrivance it is evident that the chyle, being more and more diluted and blended with abundance of lymph † from the glands through which it paſſes, and from other ſources, approaches ſtill nearer to the nature of our animal juices, and conſequently becomes fitter for nutrition.

From its reſervoir the chyle is puſhed into a narrow tranſparent pipe, called the *thoracic duct*, which climbs in a perpendicu-

* The ſeveral bones which compoſe the chine are called vertebres, of which five belong to the loins.

† The lymph is the moſt elaborated and fineſt part of the blood, which is continually flowing into the chyle through its whole courſe.

lar

lar direction by the ſide of the back-bone, from the loins up to the collar bone, and opens into the ſubclavian vein *; where, by a peculiar arrangement of ſeveral ſmall valves, the chyle mingles gently with the blood, after it has been thoroughly elaborated, churned, and attenuated with lymph from every part of the thorax †, and is from thence ſoon conveyed to the heart.

THUS, by a wonderful mechaniſm, we may plainly perceive that a large quantity of chyle and lymph is forced upwards, in a perpendicular courſe, through a thin ſlender pipe, if we attend to the following particulars: *Firſt*, To the progreſs of the chyle, urged forward and continued from the antecedent action of the inteſtines, and the beating of the meſenteric arteries.

* Moſt commonly into the left, but ſometimes, tho' very rarely, into the right. Nay, ſometimes, as that accurate anatomiſt Dr. Monro obſerves, it divides into two under the curvature of the great artery; one goes to the right, and the other to the left ſubclavian vein.

† By thorax is meant the great cavity of the breaſt.

Secondly,

Secondly, To the motion of the diaphragm and lungs, in reſpiration, preſſing this thoracic duct that lies under them, while the thorax riſing and falling reſiſts their action, whereby the duct is ſqueezed between two contrary forces, and the liquor which it contains puſhed upwards. *Thirdly*, This duct runs cloſe by the ſide of the great artery, (called by anatomiſts the ſuperior portion of the deſcending aorta) whoſe ſtrong pulſation preſſes its yielding ſides, and compels the chyle and lymph to mount in an upright aſcent. *Fourthly*, We are to obſerve that this duct is accommodated with valves, which permit its contents to move upwards by every compreſſion, but never to fall back again. Thus terminates the ſecond ſtage of concoction, when the chyle falls into the heart. And we ſee that, in its progreſs through theſe two ſtages, our aliment has been accurately mixed with all the nouriſhing juices of the body, and with all the ſubſtances or principles that compoſe the blood, *viz.* ſaliva, mucus, lymph, bile, water, ſalts, oil, and ſpirits.

But here we muſt take notice, that the moſt fluid and ſubtile part of our aliment, before and after it is elaborated into chyle, paſſes into the blood by certain abſorbent veins diſperſed all over the mouth, gullet, ſtomach and inteſtines. This is evident from the ſudden refreſhment and ſtrength communicated to weary, faint and hungry people, immediately upon drinking a glaſs of good wine; or eating any cordial ſpoon meat; and from the flavour which different ſorts of food give to the urine, much ſooner than it is poſſible for the chyle to reach the heart in its common windings.

The third ſtage of concoction begins, where the chyle mingles with the blood, and falling ſoon into the right ventricle of the heart, is from thence propelled into the lungs. It will appear that the lungs are the principal inſtrument of ſanguification, or converting the chyle into blood, if we conſider their ſtructure, firſt with regard to the air veſſels of which they are compoſed,

ſed, and ſecondly with regard to their blood veſſels; for we ſhall then clearly perceive the change which their fabric and action muſt neceſſarily produce on the chyle. The wind pipe is compoſed of ſegments of cartilaginous rings on the fore part, to give a free paſſage to the air in reſpiration; and of a ſtrong membrane on its back part, to bend with the neck, and give way to the gullet in deglutition. This pipe is lined throughout with an infinity of glands, which perpetually diſtil an unctuous denſe humour to lubricate and anoint the paſſages of the air. Soon after the wind pipe has deſcended into the cavity of the breaſt, it is divided into two great branches, and theſe two are ſubdivided into innumerable ramifications called Bronchia *, which grow ſmaller in their progreſs, (not unlike a buſhy tree inverted) until at laſt they terminate in millions of little bladders, which hang in cluſters on their extremities, and are inflated by the admiſſion of the air,

* From Βρογχος, *guttur*.

and

and ſubſide at its expulſion. Theſe cluſters conſtitute the lobes of the lungs. The blood veſſels of the lungs next deſerve our attention. The branches of the pulmonary artery run along with thoſe of the windpipe, and are ultimately ſubdivided into an endleſs number of capillary ramifications, which are ſpread like a fine net-work, over the ſurface of every individual air bladder. And the pulmonary vein, whoſe extreme branches receive the blood and chyle from thoſe of the arteries, run likewiſe in form of a net over all the air bladders of the Bronchia.

From this admirable ſtructure of the lungs, it is obvious, that the crude mixture of the blood and chyle, paſſing thro' the minute ramifications of the pulmonary artery and vein, is compreſſed and ground by two contrary forces, *viz.* by the force of the heart driving the mixture forward againſt the ſides of the bronchia and air bladders; and by the elaſtic force of the air equally repelling this mixture from the contrary ſide.

By

By theſe two oppoſite forces, the chyle and blood are more intimately blended and incorporated; and by the admiſſion and expulſion of the air in reſpiration, the veſſels are alternately inflated and compreſſed (and probably ſome ſubtile air or æther is received * into the blood) by which means the mixture is ſtill further attenuated and diſſolved; and after various circulations through the lungs, and heart, and the whole arterial ſyſtem, is at laſt perfectly aſſimilated with the blood, and fitted to nouriſh the body, and anſwer the different purpoſes of animal life.

When the blood thus prepared from the aliment is by repeated circulations gradually drained of all its bland and uſeful

* This ſeems, at leaſt, probable from the following ſimple experiment: Some phyſicians at Worceſter laid bare the crural artery of a fowl, and made two firm ligatures on the artery, at the diſtance of an inch one from the other. They then cut out the artery above and below the two ligatures, and put it immediately into an air pump, and upon exhauſting the air, the ſection of the artery between the ligatures, which was full of blood, ſwelled inſtantly to a conſiderable degree.

parts,

parts, and begins to acquire too great a degree of acrimony, it is carried off by ſenſible and inſenſible evacuations, through the ſeveral channels and diſtributions of nature. By theſe evacuations the body becomes languid, and requires a freſh ſupply of aliment; while at the ſame time the ſaliva, and juices of the ſtomach and inteſtines, growing thin and acrid by multiplied circulations, vellicate the nerves of thoſe paſſages, and excite hunger, as a faithful monitor, to remind us of that refreſhment which is now become neceſſary.

From this ſhort view of concoction it follows, firſt, that the immenſe variety of aliments, which the bounty of heaven has provided on the earth and in the waters, for the ſuſtenance of man, is by this divine mechaniſm, reduced at laſt to one red, uniform, vital fluid, proper to nouriſh and ſupport the human fabric.

It follows in the next place, that when we take in a larger quantity of aliment than our digeſtive faculties are able to con-

quer and aſſimilate, ſuch a quantity can never turn to good nouriſhment.

THIRDLY, when by the arts of luxury our food is rendered too high and rich, and conſequently too much ſaturated with pungent ſalts, and oils; ſuch mixtures with the blood will contribute rather to deſtroy than maintain health.

IT follows, fourthly, that exerciſe is neceſſary to aſſiſt the ſolids* in rubbing, agitating, and levigating our aliment, to mix it intimately with our animal juices, and make it paſs with eaſe through theſe narrow pipes and ſubtile ſtrainers, which it muſt pervade, in order to nouriſh the body. And here we may obſerve, that moderate riding on horſeback, accommodated to a perſon's ſtrength, is, of all exerciſes, the moſt proper to promote a good digeſtion, by means of that infinity of gentle ſuc-

* By ſolids here I mean the muſcular fibres of the body, or the action of the ſeveral muſcles concerned in concoction.

cuſſions

cuſſions which it gives to the bowels; whereby the ſtomach is aſſiſted to diſſolve the remains of the aliment; the chyle is forwarded in paſſing from the inteſtines into the lacteal veins; the lymph and chyle together are puſhed briſkly through the thoracic duct into the heart; and the circulation is invigorated to aſſimilate that mixture into good blood and healthful nouriſhment; and to throw all ſupperfluities through the natural drains, out of the body. From this corollary may be clearly deduced the reaſonableneſs of every argument advanced by Sydenham, Fuller, and others, to recommend riding.

FIFTHLY, people in health ſhould not force themſelves to eat when they have no inclination to it; but ſhould wait the return of appetite, which will not fail to admoniſh them of the proper time for refreſhment. To act contrary to this rule frequently, will overload the powers of digeſtion, and pervert the purpoſe of nature.

And to add but one conſequence more, it is evident from what has been ſaid, that to facilitate a complete digeſtion, our aliment ought to be well chewed.

In ſhort, the reaſon and expediency of every rule eſtabliſhed by experience to direct us in the quantity and choice of our aliment, may, with a little attention, be plainly deduced from the mechaniſm by which concoction is performed.

Of the Circulation of the Blood, and its Conſequences.

Every man talks familiarly of the circulation of the blood, and ſeems to be well acquainted with that ſubject. But when it is thoroughly conſidered, it will appear to be one of the moſt ſtupendous * works

* Ne igitur mireris ſolem, lunam, et univerſam aſtrorum ſeriem ſummo artificio diſpoſitam eſſe, neve te attonitum magnitudo eorum, vel pulchritudo, vel motus perpetuus reddat adeo, ut ſi inferiora hæc comparaveris, parva tibi videantur eſſe: etenim ſapientiam, et virtutem, et providentiam hic quoque ſimilem invenies. Gal. de uſu partium, lib. 3. cap. 10. verſ. latin. vulgar.

of

of omnipotence. Tho' the life of the animal abſolutely depends upon it, yet the greateſt phyſicians and philoſophers of antiquity knew it not. To England, and modern times, was reſerved the glory of bringing this important ſecret to light. And even after the immortal Harvey * publiſhed his diſcovery with all the evidence of a demonſtration, it was a long time before Riolanus, and the beſt anatomiſts of thoſe days, could be perſuaded of the truth of it. So great was their attachment to the ancients, that they could ſcarce believe their own eyes.

To form a diſtinct judgment of the mechaniſm and importance of the circulation, it will be neceſſary to deſcribe the ſtructure of the arteries, veins, and nerves; and take notice of ſome experiments made upon them. We muſt in the next place touch upon the cavities of the heart, by

* William Harvey was born at Folkſton in Kent, *anno* 1557, and educated at Cambridge. He ſtudied five years at Padua, was phyſician to Charles I. and lived to fourſcore.

means

means of which the blood is propelled through the body. And then proceed to obſerve the extenſive uſe and benefit of this circulation to every branch of the animal oeconomy. From all which it will be obvious to deduce the congruity of the principal rules eſtabliſhed by experience for the conſervation of health.

THE arteries are blood-veſſels conſiſting of a cloſe texture of ſtrong elaſtic * fibres †, woven in various webs, laid in different directions, and interſperſed with an infinity of delicate nerves, veins, and minute arteries. They are divided and ſubdivided into numberleſs branches and ramifications, that grow ſmaller and ſmaller as they recede from the heart, until at laſt their extremities become much more ſlender than the hairs of a man's head, (called therefore capillary arteries) which are found either

* Elaſtic bodies (from ἐλαύνω, *agito*) are thoſe which have the power of a ſpring, or of reſtoring themſelves to the poſture from which they were diſplaced by any external force.

† By fibres are meant ſmall animal threads, which are the firſt conſtituent parts of the ſolids.

to unite in continued pipes with the beginnings of the veins, or to terminate in ſmall receptacles, from which the veins derive their origin. The arteries have no valves but only where their trunks ſpring from the heart. They throb and beat perpetually while life remains; and their extremities differ in the thickneſs of their coats, and ſome other particulars, according to the nature of the part which they pervade. All the arteries in the lungs (except the ſmall ones that convey nouriſhment to them) are derived from the great pulmonary artery, which iſſues from the right ventricle of the heart. And all the arteries in the reſt of the body proceed from the aorta *, whoſe trunk ſprings from the left ventricle of the heart.

THE veins reſemble the arteries in their figure and diſtribution, but their cavities are larger, and their branches perhaps more numerous. Their coats are much weaker

* Aorta properly ſignifies an air veſſel (from ἀὴρ, *aër*, *et* τηρέω, *ſervo*) becauſe the antients thought that this artery contained air only.

and

and ſlenderer than thoſe of the arteries. They are furniſhed with ſeveral valves, contrived in ſuch a manner as to permit the blood to paſs freely from the ſmaller into the larger branches, but ſtop its retrogreſſion. They neither throb nor beat. Their beginnings form continued pipes with the extremities of the arteries, or ariſe from ſome gland or receptacle where the arteries terminate. All the veins in the lungs, from their capillary beginnings growing ſtill larger, unite at laſt and diſcharge their blood into the left auricle * of the heart. And all the veins in the reſt of the body empty themſelves in like manner, into the *vena cava*, which opens into the right auricle of the heart.

THE nerves deduce their origin from the brain or its appendages, in ſeveral pairs, of a cylindric form, like ſo many ſkains of

* The right and left auricle are two muſcular caps covering the two ventricles of the heart, thus called from the reſemblance they bear to the external ear. They move regularly like the heart, but in an inverted order, their contraction correſponding to the dilatation of the ventricle.

thread

thread within their reſpective ſheaths, which in their progreſs decreaſe by endleſs diviſions and ſubdiviſions, until at laſt they ſpread themſelves into a texture of ſilaments ſo ſlender, and ſo cloſely interwoven with each other over the whole body, that the point of a needle can hardly be put upon any part or particle of it, without touching the delicate branch of ſome nerve.

THE great Harvey, and others, made ſeveral experiments upon the veſſels we have deſcribed, in order to demonſtrate the circulation of the blood. For inſtance, it has been found by many trials, that when an artery is laid bare, and a ligature made upon it, if you open the artery with a lancet between the ligature and the heart, the blood will ruſh out with great violence; and this rapid jerking ſtream will continue (unleſs you ſtop it by art) until, through loſs of blood, the animal faints or dies. But if you open the ſame artery between the ligature and the extremities, a few drops only will ouze out from the wounded coats of the artery.

On the other hand, when a vein is laid bare, and a ligature made upon it, if you open that vein between the ligature and the extremities, the blood will guſh out, as we ſee in common venæſection. But if we open the ſame vein between the binding and the heart, no blood will appear. From theſe experiments it is obvious to the ſlighteſt attention, that the blood flows from the heart, through the arteries, to the extreme parts of the body; and returns again through the veins to the heart.

For the regular performance and continuation of this motion of the blood (called its circulation) through all the different parts of the body, the wiſe Architect has furniſhed the heart, which is the *primum mobile, and gives the firſt impulſe*, with four diſtinct muſcular cavities, that is, with an auricle and a ventricle on the right ſide, and an auricle and ventricle on the left. Through theſe cavities, curiouſly adapted to their reſpective offices, the blood circulates in the following order: It is received

ceived from the veins firſt into the right auricle, which contracting itſelf, puſhes the blood into the right ventricle at that inſtant dilated. The moment this ventricle is filled, it contracts itſelf with great force, and impells the blood into the pulmonary artery, which paſſing through the lungs, and returning by the pulmonary veins, is received into the left auricle of the heart, and from thence it is puſhed into the left ventricle. The left ventricle thus filled, contracts itſelf, and drives the blood with great rapidity to all the parts of the body, and from them it returns again through the veins into the right auricle of the heart as before. It is very remarkable, that we have here a double circulation: One from the right ventricle *through the lungs*, to the left auricle of the heart, in order to convert the chyle into blood, and finally prepare it for the nouriſhment of the animal. The other from the left ventricle *through the whole body*, to the right auricle of the heart, which ſerves to apply that nouriſh-

ment

ment to every part, beſides various other purpoſes.

But to proceed. Of theſe four muſcular cavities, the two auricles are contracted at the ſame inſtant, while the two ventricles are dilated; the ventricles in their turn are contracting themſelves at the very inſtant that the auricles are dilated. The arteries, in like manner, beat in alternate time with the ventricles of the heart, that is, when the ventricles are contracted the arteries are diſtended, and while the arteries contract themſelves the ventricles are diſtended.

The nerves, as well as the veins and arteries, act their part in this rotation of the blood; for if you bind up the eighth pair which proceeds from the brain to the heart, the motion of the heart immediately languiſhes, and ſoon ceaſes intirely.

Thus we have a *perpetual motion* (ſo vainly ſought for by ſome philoſophers and mathematicians) which none but a being of

of infinite wiſdom and power could produce; and perhaps its continuation requires the conſtant aid of the ſame hand that firſt gave it exiſtence. The brain tranſmits animal ſpirits to the heart, to give it a vigorous contraction. The heart, at the ſame inſtant, puſhes the blood into the brain to ſupply it with new ſpirits; by which means the head and the heart mutually ſupport each other every moment. But this is not all: The action of the heart ſends the blood and other vital humours over the whole body by the arteries, and diſtributes nouriſhment and vigour to *every part* *, (while perhaps the animal ſpirits, from the extremities of the nerves, return again into the blood) and the whole refluent maſs is conveyed back through the veins into the heart, which enables it, without intermiſſion, to perſiſt in rolling this tide of life.

If we now take a view of the uſe and importance of the circulation of the blood

* The lungs not excepted, which receive their nouriſhment by the bronchial arteries from the aorta.

to

to the whole animal oeconomy, we ſhall find it very extenſive.

1. When this circulation is duly performed, man continues in good health; when it grows irregular he ſickens; and when it ceaſes he dies. Nay, if but one member ſhould be deprived of it, that member preſently corrupts and mortifies. By means of this circulation, every natural ſecretion is mechanically regulated, the perſpiration promoted, all the dregs of the body diſcharged, and diſtempers frequently cured without any other aſſiſtance.

2. When the circulation is naturally quick and vigorous, the temperament of the body becomes habitually hot; when it is languid and ſlow, the temperament is cold. When the original ſtamina of the ſolids, which preſs forward this circulation, are compact and firm, the conſtitution is proportionably ſtrong; when they are lax and delicate, the conſtitution is weak and tender.

tender. When bile or phlegm prevails in the fluids, the complexion correſponds with the prevailing humour, and is accordingly called bilious or phlegmatic. Thus, from the different velocity of the circulation, the different ſtrength of the ſtamina, and the different mixture of the fluids in every individual, ariſes that *peculiar diſpoſition*, or * *ἰδιοσυγκρασία*, which is the true cauſe why ſeveral things that are hurtful to ſome are beneficial to others; and why the ſame perſon finds ſome things agree with him at one time, which have diſagreed at another.

But further, a moderate and calm circulation of the blood is neceſſary even towards the right government of our paſſions, and the true uſe of our reaſon. We know by daily experience, that the influence of the mind upon the body, with reſpect to health, and of the body upon the mind, with reſpect to the intellectual faculties, is

* This word cannot be accurately tranſlated into our language, but it means *that ſingular diſpoſition of the ſolids, and mixture of the fluids which are in every individual.*

very

very great. Sudden terrors have killed ſome, and diſtracted others. Anger and grief impair health, chearfulneſs and contentment promote it: Inflammations, and other diſorders of the brain, ſuſpend the right uſe of our reaſon: Many arguments induce us to believe, that the nerves ſerve for *ſenſation* and *muſcular motion*, and that by means of theſe two, the mind carries on its correſpondence with external objects. We know alſo that the nerves are ſupplied with ſpirits from the brain, and the brain with blood from the heart. From all which it is evident, that the circulation muſt be gentle and regular, in order to prevent the paſſions from growing boiſterous or headſtrong; and that conſequently it is the ſource of that rational correſpondence and harmony, which ſhould ſubſiſt between the human mind and body.

I SHALL conclude this article of the uſes of the circulation, with obſerving, that the ſame circulation which ſupports life ſo long,

long, and preſerves it in vigour, does at laſt, by a mechanical neceſſity, ſtop its own courſe, and deſtroy the animal. From the perpetual friction and attrition of the parts one againſt another, the ſtamina or fibres in a courſe of years become rigid, and loſe their ſpring; the larger pipes grow hard, and the ſmall ones, contracting gradually, become at laſt impervious; the body is ſhrivelled, and the motion of the fluids firſt languiſhes, and then ceaſes: And theſe cauſes gradually bring on old age and death, which approach ſooner or later, as the attrition of the parts has been either raſhly hurried on, with the violence and impetuoſity of exceſs and riot, or gently led with the calmneſs of moderation and temperance.

From what has been ſaid, it ſhould ſeem manifeſt that health conſiſts in a moderate, equable and free circulation of the blood, and other vital fluids of the body through their correſpondent canals. It is no leſs certain, that a proper degree of ſtrength and elaſticity in the ſtamina of theſe cavi-

ties and pipes, is neceſſary, to enable them to puſh on the fluids with vigour, and that the fluids muſt be of a proper conſiſtence and quantity, to make them yield to the impulſe of the ſolids. Let us now apply this idea of health to the *ſix inſtruments of life*, and we ſhall ſee the reaſonableneſs of the rules laid down with regard to every one of them. It will be ſufficient to give one inſtance of the moſt important precepts of each; and firſt, as to the air:

1. THE principal rule in reference to the air is, that we ſhould chuſe ſuch as is pure, and free from all pernicious damps and redundant mixtures, and known by experience to be ſalubrious. The reaſonableneſs of this rule will appear, when we conſider, that the air is indiſpenſably neceſſary to expand the lungs, and that it mingles not only with our aliment, but alſo with our blood and juices, and conſequently that it ought to be pure and elaſtic, becauſe any pernicious qualities in it would ſoon taint the blood, and diſturb the circulation,

culation, or which is the ſame thing, in other words, would afflict or deſtroy the life of the animal.

2. An important rule with reſpect to aliment is, that it ſhould be uſed juſt in ſuch a quantity as we find by experience to agree with us, and ſufficient to invigorate, but not to load the body. The expediency of this rule will be evident, when we reflect that aliment was appointed to ſupply what is thrown off by the continual attrition of the ſolids, and diſſipation of the fluids, and that conſequently too rigid abſtinence will render the ſolids languid, and unfit for action; and too great exceſs will increaſe the fluids ſo as to choak up, or burſt the tubes thro' which they paſs; and it is plain that either of theſe errors would in a ſhort time ſtop the circulation.

3. We are adviſed to uſe moderate exerciſe, adjuſted as exactly as we can to the quantity of our aliment, that ſo an equipoiſe may be maintained between what is thrown off, and what is taken into the body.

dy. Now, ſince moderate exerciſe is known to give ſtrength to the ſolids, and motion to the fluids, it is obvious to the ſlighteſt conſideration, that too much would overheat the fluids, and render the ſolids ſtiff; and too little would relax the ſolids, and make the fluids ſtagnate; both which extremes are inconſiſtent with a free circulation.

4. As ſleep was intended by nature to cheriſh the body after the action or fatigue of the day, by a new and refreſhing appoſition of parts, which work requires an adequate proportion of time, that differs in different conſtitutions; it follows, that too little ſleep muſt waſte and dry the animal, and too much would render it dull and heavy.

5. In reference to repletion and evacuation; ſince the quantity and quality of the fluids ſhould bear an exact proportion to the ſtrength and elaſticity of the ſolids, it is certain, that all ſuperfluous recrements and hurtful humours muſt be diſcharged

out

out of the body, leſt they ſhould diſturb or deſtroy the neceſſary equipoiſe between the ſolids and fluids; and that all uſeful humours muſt be retained, in order to preſerve this balance.

6. LASTLY, As the paſſions and affections of the mind, by creating diſorders in the blood, have ſo great an influence on health, it is evident that a habit of virtue which can govern theſe paſſions, and make them ſubſervient to reaſon, is the firſt and principal rule in which mankind ought to be trained up, to ſecure a good ſtate of health in all the periods of life.

CHAP.

CHAP. II.

A ſummary of the rules of health proper to be obſerved, with regard to every one of the ſix things neceſſary to human life, as air, aliment, exerciſe, &c. together with ſome other general maxims.

OF the rules requiſite to preſerve health, ſome are general or common to all ages and conditions of men; and ſome are particular, or adapted to different periods and circumſtances of life. Under the general rules are comprehended thoſe which relate to the *ſix inſtruments of life*, as air, aliment, *&c.* together with ſome other uſeful maxims. Under the particular rules are reckoned, *firſt*, Thoſe which are peculiar to different temperaments, namely the bilious, ſanguine, melancholic and phlegmatic. *Secondly*, Thoſe rules that belong to different periods of life, as infancy, youth, manhood, and old age. *Thirdly*, Thoſe that are appropriated to different conditions and circumſtances of men, conſidered

ſidered as active or indolent, wealthy or indigent, free or ſervile.

I SHALL mention all theſe in order, beginning with the general rules which relate to Galen's *Six Non-naturals, viz.* Air, aliment, exerciſe and reſt, ſleep and wakefulneſs, repletion and evacuation, together with the paſſions and affections of the mind.

Of AIR.

AIR, by its extreme ſubtilty and weight, penetrates into, and mingles with every part of the body; and by its elaſticity gives an inteſtine motion to all the fluids, and a lively ſpring to all the fibres, which promote the circulation. As it is therefore the principal moving cauſe of all the fluids and ſolids of the human body, we ought to be very careful in chuſing a healthy air, as far as it is in our power.

1. THAT air is beſt which is pure *, dry, and temperate, untainted with noxious

* By pure and dry is not meant an air abſolutely clear from any heterogeneous mixture, for that is impoſſible, nor would ſuch be fit for animals, but an air not overcharged with any ſteams.

damps,

damps, or putrid exhalations from any cauſe whatſoever; but the ſureſt mark of a good air, in any place, is the common longevity of its inhabitants.

2. A HOUSE is healthy which is ſituated on a riſing † ground and a gravelly ſoil, in an open dry country; the rooms ſhould be pretty large, but not cold; the expoſure prudently adapted to the nature of the climate, but ſo contrived that your houſe may be perflated by the eaſt or north winds whenever you pleaſe, which ſhould be done at leaſt once every day, to blow away animal ſteams, and other noxious vapours. But eſpecially let the air of your bed chamber be pure and untainted, not near the ground, or any kind of dampneſs.

3. EVIDENT marks of a bad air in any houſe, are dampneſs or diſcolouring of plai-

† See Columel. de re ruſt. lib. 1. cap. 4. Petatur igitur aër calore et frigore temperatus, quem medius fere obtinet collis, loco paululum intumeſcente, quod neque depreſſus hieme pruïnis torpet, aut torret æſtate vaporibus.

plaiſter or wainſcot, mouldineſs of bread, wetneſs of ſpunge, melting of ſugar, ruſting of braſs and iron, and rotting of furniture.

4. THERE is nothing more apt to load the air with putrid ſteams, or breed bad diſtempers, than the general and pernicious cuſtom of permitting *common and crowded burial places* to be within the precincts of populous cities.

5. THE air of cities being loaded with ſteams of fuel, and exhalations from animals, is unfriendly to infants * not yet habituated to ſuch noxious mixtures.

6. SUDDEN extremes of heat and cold ſhould be avoided as much as poſſible; and they commit a moſt dangerous error, who, in the winter nights, come out of the cloſe,

* Founded upon experience, is mentioned a calculation in the biſhop of Worceſter's excellent ſermon, (page 18, 19.) preached for the benefit of the Foundling Hoſpital *anno* 1756, ſhewing that many more children die in proportion, which are nurſed in a populous city, or brought up by hand, than if they were nurſed in the country, and nouriſhed at the breaſt.

hot rooms of public houſes, into a cold and chilling air, without cloaks or ſurtouts.

Of ALIMENT.

1. THE beſt food is that which is ſimple, nouriſhing, without acrimony, and eaſily digeſted; and the principal rule to be obſerved with regard to aliment in general, is to eat and drink wholeſome things in a proper quantity. But, you will ask, how ſhall the bulk of the people diſtinguiſh wholeſome aliment from unwholeſome? And how ſhall they meaſure the quantity proper for them? I anſwer, that almoſt all the aliment in common uſe has been found wholeſome by the experience of ages, and a moderate healthy man need not be under great apprehenſions of danger in partaking of ſuch. But there is an obvious rule which will direct every individual aright in the choice of his aliment. Let him obſerve what agrees with his conſtitution and what does not, and let his experience and reaſon direct him to uſe the

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one and avoid the other. And as to the proper quantity of aliment, the rule is, to take juſt ſuch a proportion as will be ſufficient to ſupport and nouriſh him, but not ſuch as will overload the ſtomach, and be difficult to digeſt; yet in this meaſure alſo, every individual has a ſure guide, if he will be directed by a natural undepraved appetite; for whenever he has eat of any good food, as much as his appetite requires, and leaves off before his ſtomach is cloyed *, or finiſhes his meal with ſome reliſh for more, he has eat a proper quantity. But to prevent any deception, he may be ſtill farther convinced that he has committed no exceſs, if immediately after dinner he can write or walk, or go about any other neceſſary buſineſs with pleaſure; and if after ſupper his ſleep ſhall not be diſturbed, or ſhortened by what he has eat or drank; if he has no head-ach next morning, nor any uncommon haughing or ſpit-

* Vid. Hippoc. aph. ſect. 2. aphor. 17. Ubi copioſior præter naturam cibus ingeſtus fuerit, id morbum creat.

ting,

ting, nor a bad taſte in his mouth; but riſes at his uſual hour refreſhed and chearful.

2. ANOTHER uſeful rule is, that we ſhould not indulge ourſelves in a diſcordant variety of aliments at the ſame meal. Tho' a good ſtomach, for example, may make a ſhift to digeſt fiſh, fleſh, wine and beer at one repaſt; yet if one adds ſalad, cream and fruit to them (which is too frequently done) the flatulent mixture will diſtend the bowels, and pervert the digeſtion.

3. THE quantity and ſolidity of a man's aliment ought to bear a juſt proportion to the ſtrength of his conſtitution, and to the exerciſe which he uſes: For young, ſtrong, labouring people will turn to good nouriſhment any kind of food in common uſe; and they can digeſt with eaſe a quantity that would oppreſs or deſtroy the delicate and ſedentary.

4. BREAD, made of good wheat flour, properly fermented and baked, is the moſt valuable

valuable article of our diet, wholeſome and nouriſhing by itſelf, mixing well with all ſorts of aliment, and frequently agreeable to the ſtomach when it loaths every other food.

5. It is to be obſerved, that liquid aliments, or ſpoon meats, are moſt proper, when immediate refreſhment is required after great abſtinence or fatigue, becauſe they mingle ſooner with the blood than ſolid aliments.

6. As drink makes a conſiderable part of our aliment, it may not be amiſs here to inquire which ſort of common drink, generally ſpeaking, is the moſt proper to preſerve health. "Pure water (ſays Frederick Hoffman *) is the beſt drink for "perſons of all ages and temperaments. "By its fluidity and mildneſs it promotes a "free and equable circulation of the blood "and humours through all the veſſels of "the body, upon which the due perfor-

* Diſſert. phyſico-med. vol. 2. diſſert. 5.

"mance

" mance of every animal function de-
" pends; and hence water drinkers are not
" only the moſt active and nimble, but
" alſo the moſt chearful and ſprightly of
" all people. In ſanguine complexions,
" water, by diluting the blood, renders
" the circulation eaſy and uniform. In
" the choleric, the coolneſs of the water
" reſtrains the quick motion, and intenſe
" heat of the humours. It attenuates the
" glutinous viſcidity of the juices in the
" phlegmatic, and the groſs earthineſs
" which prevails in melancholic tempera-
" ments. And as to different ages, water is
" good for children, to make their tenaci-
" ous milky diet thin, and eaſy to digeſt:
" For youth and middle aged people, to
" ſweeten and diſſolve any ſcorbutic acri-
" mony, or ſharpneſs that may be in the
" humours, by which means pains and ob-
" ſtructions are prevented: And for old peo-
" ple, to moiſten and mollify their rigid fi-
" bres, and to promote a leſs difficult circu-
" lation thro' their hard and ſhrivel'd pipes.
" In ſhort," (ſays he) of all the productions

" of

"of nature or art, water comes neareſt to "that univerſal remedy or panacea, ſo much "ſearched after by mankind, but never "diſcovered." The truth of it is, pure, light, ſoft, cold water, from a clear ſtream, drank in ſuch a quantity as is neceſſary to quench their thirſt, dilute their food, and cool their heat, is the beſt drink for children, for hearty people, and for perſons of a hot temperament, eſpecially if they have been habituated to the uſe of it: But to delicate or cold conſtitutions, to weak ſtomachs, and to perſons unaccuſtomed to it, water without wine is a very improper drink *; and they will find it ſo, who try it under ſuch circumſtances.

GOOD wine † is an admirable liquor, and, uſed in a moderate quantity, anſwers many

* See Hippocrates's opinion on this article, page 106, &c.

† Plutarch in his life of Cæſar tells us, that when he had taken Gomphi, a town in Theſſaly, by aſſault, he not only found proviſions for his army, but phyſic alſo: For there they met with plenty of wine, which they drank freely. Warmed

many excellent purpoſes of health. Beer well brewed, light, clear, and of a proper ſtrength and age, if we except water and wine, is perhaps the moſt antient, and beſt ſort of drink in common uſe among mankind.

7. It is neceſſary to obſerve, that water or ſmall beer, or ſome other weak liquor, ſhould be drank at meals, in a quantity ſufficient to dilute our ſolid food, and make it fluid enough to circulate through the ſmall blood veſſels, otherways the animal functions will grow languid, and obſtructions muſt follow.

8. Tea, to ſome, is a refreſhing cordial after any fatigue. To ſome it is uſeful and ſeems to aſſiſt digeſtion, drank at a proper diſtance of time after dinner: But to others it occaſions ſickneſs, fainting, and tremors at all times; ſo that the experience

ed with this, and inſpired with the god, they jollily danced along, and ſo ſhook off their diſeaſe contracted from their former crude and ſcanty diet, and changed their whole conſtitution.

of

of every individual muſt determine not only the uſe or forbearance, but alſo the ſtrength and quantity of this exotic beverage.

As the nature of Coffee is more fiery and active than that of tea, and the frequent uſe of it may conſequently be more dangerous, every man's own experience ſhould direct him how and when to uſe or forbear it; but the trial ſhould be fairly made with care and caution.

CHOCOLATE is nouriſhing and balſamic, when freſh and good, but very diſagreeable to the ſtomach, when the nut is badly prepared, and is greaſy, decayed or rancid.

9. PERSONS of tender conſtitutions ſhould be careful to chew their meat well, that it may be more eaſily digeſted.

Of EXERCISE.

As the human body is a ſyſtem of pipes, through which fluids are perpetually circulating; and as life ſubſiſts by this circulati-

on, contrived by infinite wiſdom to perform all the animal functions, it is obvious that exerciſe muſt be neceſſary to health, becauſe it preſerves this circulation by aſſiſting digeſtion, and throwing off ſuperfluities. Beſides, we ſee every day that the active * are ſtronger than the ſedentary; and that thoſe limbs of labouring men which happen to be moſt exerciſed in their reſpective occupations, grow proportionably larger and firmer than thoſe limbs which are leſs employed.

1. THREE things are neceſſarily to be conſidered with regard to exerciſe. *Firſt*, What is the beſt ſort of exerciſe. *Secondly*, What is the beſt time to uſe it: And, *thirdly*, What is the proper degree or meaſure to be uſed. As to the firſt, tho' various exerciſes ſuit various conſtitutions, as they happen to be robuſt or delicate, yet

* Julius Cæſar was of a weak and delicate conſtitution, ſays Plutarch, which however he hardened by exerciſe, and drew even from the incommodities of war a remedy for his indiſpoſitions, by inuring himſelf to all ſorts of fatigue, and turning even his repoſe into action.

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in general that ſort is beſt to which one has been accuſtomed, which he has always found to agree with him, and in which he takes the greateſt delight.

2. In the ſecond place, the beſt time to uſe exerciſe is when the ſtomach is moſt empty. Some cannot bear it quite faſting, and therefore to them exerciſe is proper enough after a light breakfaſt, or towards evening when dinner is pretty well digeſted, but ſhould never be attempted ſoon after a full meal, by ſuch as are under no neceſſity to work for their daily ſubſiſtence.

3. Lastly, The meaſure or proportion of exerciſe fit for every individual, is to be eſtimated by the ſtrength or weakneſs of his conſtitution: For when any perſon begins to ſweat, or grow weary, or ſhort breathed, he ſhould forbear a while, in order to recover himſelf, and then reſume his exerciſe again, as long as he can purſue that method with eaſe and pleaſure: But if he perſiſts until he turns pale, or languid, or ſtiff,

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he has proceeded too far, and muſt not only forbear exerciſe for the preſent, but ſhould alſo uſe leſs next day. In general it is to be obſerved, that children and old people require much leſs exerciſe than thoſe who are in the vigour of life.

4. EXERCISE may properly be divided into three ſorts. *Firſt*, That which is performed by the intrinſic powers of our own body only, as walking, running, dancing, playing at ball, reading * aloud, *&c.* *Secondly*, That which is performed by the powers of ſome other bodies extrinſic to us, as geſtation in wheel machines, horſe litters, ſedan chairs, ſailing, *&c.* And, *Thirdly*, That which partakes of both the former, as riding on horſe-back, wherein

* Dr. Andry obſerves, that ſinging is a moſt healthful exerciſe, and ſubjoins the following wotds: "Tanta denique "eſt vocis et loquelæ in exercendo corpore præſtantia, ut id "fortaſſe cauſa ſit, cur fœminæ non tanto alias exercitio "indigent quanto indigent viri, quoniam ſcilicet ſunt illæ "loquaciores. Quæſt medic. An præcipua valetudinis tutela "exercitatio? In ſchol. medic. Pariſ. diſcuſſa, an. 1723, Præ-"ſid. Nic. Andry."

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we exerciſe our own powers by managing our horſe, and holding our bodies firm and upright, while the horſe performs the part of a vehicle.

WITHOUT entering into the antient diſputes of philoſophers, about the moſt healthful of all theſe ſorts, we may venture to affirm in general, that what is performed by our own powers, is the moſt proper for perſons of a ſtrong and healthy conſtitution; that what is performed by external helps only, is moſt proper for the infirm and delicate; and that the exerciſe performed partly by ourſelves, and partly by foreign aſſiſtance, is moſt ſuitable to ſuch as are neither very robuſt nor very tender: And as to the particular benefits which ariſe from riding on horſeback, they have been ſet furth in ſo rational and lively a manner by Sydenham and Fuller, that nothing material can be added to their arguments; and it has been already obſerved, that whatever advantage can be received from a good digeſtion, may in an eminent

degree

degree be expected from this exerciſe, adjuſted accurately to the ſtrength of the rider.

5. AFTER exerciſe we run a great riſk of catching cold, (eſpecially if we have been in any degree of ſweat) unleſs we take care to prevent it, by rubbing our bodies well with a dry cloth, and changing our linen, which ſhould be previouſly well aired: But of all the follies committed immediately after exerciſe, the moſt pernicious is that of drinking ſmall liquors of any ſort quite cold, when a man is hot; whereas if we drank them blood warm, they would quench our thirſt better, and could do us no injury.

6. LEAN people are ſooner weakened and waſted by too much exerciſe than thoſe who are plump: And every man ſhould reſt for ſome time after exerciſe, before he ſits down to dinner or ſupper.

Of SLEEP and WAKEFULNESS.

1. SLEEP and wakefulneſs bear a great reſemblance to exerciſe and reſt; as wakefulneſs is the natural ſtate of action, in which the animal machine is fatigued and waſted, and ſleep the ſtate of eaſe, in which it is refreſhed and repaired. The viciſſitude of ſleeping and waking is not only neceſſary but pleaſing to our nature, while each is confined within its proper limits. But you will ask what limits ſhould be aſſigned to ſleep? The anſwer is, that tho' different conſtitutions require different meaſures of ſleep, yet it has been in general obſerved, that ſix or ſeven hours are ſufficient for youth or manhood, and eight or nine for infancy or old age, when they are ſtrong and healthy, but the infirm are not to be limited; and the weaker any perſon is, the longer he ought to indulge himſelf in ſuch a meaſure of ſleep as he finds by experience ſufficient to refreſh him.

2. Mo-

2. MODERATE ſleep increaſes the perſpiration, promotes digeſtion, cheriſhes the body, and exhilarates the mind; and they whoſe ſleep is apt to be interrupted by ſlight cauſes, ſhould nevertheleſs keep themſelves quiet and warm in bed, with their eyes ſhut, and without toſſing or tumbling, which will in ſome degree anſwer the purpoſes of a more ſound ſleep.

3. EXCESSIVE ſleep, on the other hand, renders the body phlegmatic and inactive, impairs the memory, and ſtupifies the underſtanding. And exceſſive wakefulneſs diſſipates the ſtrength, produces fevers, dries and waſtes the body, and anticipates old age.

4. HE who ſleeps long in the morning, and ſits up late at night, inverts the order of nature, and hurts his conſtitution, without gaining any time; and he who will do it merely in compliance with the faſhion, ought not to repine at a faſhionable ſtate of bad health.

5. A MAN ſhould forbear to ſleep after dinner, or indeed at any other time of the day in our cold climate, except where a long habit has rendered ſuch a cuſtom almoſt natural to him, or where extraordinary fatigue, or want of reſt the preceeding night, obliges him to it; in which caſe he ſhould be well covered to defend him againſt catching cold.

6. Two hours or more ſhould intervene between ſupper and the time of going to bed: And a late heavy ſupper is a great enemy * to ſleep, as it diſturbs that ſweet tranquillity of the body and mind, which is ſo refreſhing to both.

Of REPLETION and EVACUATION.

1. THE whole art of preſerving health may properly enough be ſaid to conſiſt in filling up what is deficient, and emptying what is redundant, that ſo the body may be habitually kept in its natural ſtate; and

* Somnus ut ſit levis, ſit tibi cœna brevis. Schol. Salern.

hence it follows, that all the ſupplies from eating and drinking, and all the diſcharges by perſpiration, and by the other channels and diſtributions of nature, ſhould be regulated in ſuch a manner that the body ſhall not be oppreſſed with repletion, or exhauſted by evacuation. Of theſe two, one is the cure or antidote of the other; every error in repletion being corrected by a ſeaſonable and congruous evacuation; and every exceſs in evacuation (if it has not proceeded too far) being cured by a gradual and ſuitable repletion.

2. When any repletion has been accumulated, it requires a particular and correſpondent evacuation, well known to phyſicians. Repletion, for inſtance, from eating or drinking, requires a puke or abſtinence. A fulneſs of blood requires immediate venæſection. A redundancy of humours requires purging. And a retention of any excrementitious matter, which ſhould have been diſcharged by ſweat, urine, or ſpitting, requires aſſiſtance from ſuch means as are found

found by experience to promote theſe ſeveral evacuations. And if thoſe cautions are neglected, there will ſucceed an oppreſſion of the ſtomach or breaſt, a weight of the head, a rupture of the blood veſſels, or ſome other troubleſome diſorder.

3. It is to be obſerved that a perſon in perfect health, all whoſe ſecretions are duly performed, ought never to take any medicine that is either evacuating or acrimonious, becauſe it may diſturb the operations of nature without any neceſſity; and Hippocrates expreſly declares *, that thoſe who are of a ſtrong and healthy conſtitution are much the worſe for taking purges ‡. But as to external ablutions of the skin, by waſhing, bathing, or ſwimming, they are proper for healthy people, provided they are not carried to exceſs.

4. It alſo is to be obſerved, that chewing or ſmoking tobacco ſoon after meals, generally deſtroys the appetite, and hurts

* Sect 2. aphor. 36, 37.

‡ It is to be obſerved that the purges uſed in Hippocrates's time were all ſomewhat violent.

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the conſtitution, both by weakening the ſprings of life, (as other opiates do) and by evacuating the ſaliva which nature has appointed to fall into the ſtomach to promote digeſtion.

5. NOTHING exhauſts and enervates the body more, or hurries on old age faſter than premature concubinage; and hence the ancient Germans * are extolled by Tacitus for not marrying before they arrived at their full vigour.

Of the PASSIONS and AFFECTIONS of the Mind.

1. HE who ſeriouſly reſolves to preſerve his health, muſt previouſly learn to conquer his paſſions, and keep them in abſolute ſubjection to reaſon; for let a man be ever ſo temperate in his diet, and regular in his exerciſe, yet ſtill ſome unhappy paſſions, if indulged to exceſs, will prevail over all his regularity, and prevent the good

* Tarda illis venus, et pares validique miſcebantur. De mor. German.

effects

effects of his temperance; it is neceſſary therefore that he ſhould be upon his guard againſt an influence ſo deſtructive.

2. FEAR, grief, and thoſe paſſions which partake of them, as envy, hatred, malice, revenge, and deſpair, are known by experience to weaken the nerves, retard the circular motion of the fluids, hinder perſpiration, impair digeſtion, and often to produce ſpaſms, obſtructions, and hypochondriacal diſorders. And extreme ſudden terror * has ſometimes brought on immediate death.

3. MODERATE joy and anger, on the other hand, and thoſe paſſions and affections of the mind which partake of their nature, as chearfulneſs, contentment, hope, virtuous and mutual love, and courage in doing good, invigorate the nerves, accelerate the circulating fluids, promote perſpiration, and aſſiſt digeſtion; but violent anger (which differs from madneſs only in duration) creates bilious, inflammatory,

* See Valer. Maxim. who mentions ſeveral ſuch inſtances.

convulſive,

convulſive, and ſometimes apoplectic diſorders, eſpecially in hot temperaments; and exceſs of joy deſtroys ſleep, and often has ſudden and fatal * effects.

4. It is obſervable, that the perſpiration is larger from any vehement paſſion of the mind when the body is quiet, than from the ſtrongeſt bodily exerciſe when the mind is compoſed. Thoſe therefore who are prone to anger, cannot bear much exerciſe, becauſe the exuberant perſpiration of both would exhauſt and waſte the body. It is alſo remarkable, that a diſorder which ariſes from any vehement agitation of the mind, is more ſtubborn than that which ariſes from violent corporal exerciſe, becauſe the latter is cured by reſt and ſleep, which have but little influence on the former.

5. A CONSTANT ſerenity, ſupported by hope, or chearfulneſs ariſing from a good conſcience, is the moſt healthful of

* Vid. Plin. hiſt. nat. lib. 7. cap. 53. Aul. Gell. Noct. Attic. lib. 3. cap. 15.

all

all the affections of the mind. Chearfulneſs of ſpirit, (as the great lord Verulam obſerves) is particularly uſeful when we ſit down to our meals, or compoſe ourſelves to ſleep; becauſe anxiety or grief are known to prevent the benefits which we ought naturally to receive from theſe refreſhments: "If therefore, ſays he, any violent paſſion ſhould chance to ſurprize us near "thoſe times, it would be prudent to de"fer eating, or going to bed, until it ſub"ſides, and the mind recovers its former "tranquillity."

HAVING thus mentioned the principal rules relating to the *Six things neceſſary to life*, conſidered ſingly, I ſhall here ſubjoin a very important rule, which conſiders two of the ſix together, and ſhews the mutual influence which they have one upon the other, with reſpect to health. The rule is, that our exerciſe ſhould bear an exact proportion to our diet, and our diet in like manner to our exerciſe; or, in other words, that he who eats and drinks plentifully,

ſhould

ſhould uſe much exerciſe; and he who cannot uſe exerciſe ſhould, in order to preſerve his health, live abſtemiouſly. Perſons who can uſe moderate and conſtant exerciſe, are able to digeſt a large quantity of aliment, without any injury to their health, becauſe their exerciſe throws off whatever is ſuperfluous; but tender people, who can uſe little or no exerciſe, if they ſhould take in a large quantity of food, ſome indigeſted ſuperfluity muſt remain in the body, which becomes a perpetual ſource of diſtempers. Hippocrates looks upon this rule of adjuſting our diet to our exerciſe as the moſt important in the whole art of preſerving health, and has taken particular care to recommend it, as we have ſeen before.

But one caution I muſt here recommend, which is leſs attended to than it deſerves, *viz.* when a man happens to be much fatigued and ſpent after a hard journey or violent exerciſe, and ſtands in need of immediate refreſhment, let him eat things that are light and eaſy to digeſt, and drink

drink ſome ſmall liquor warm; for heavy meat and ſtrong drink will increaſe the artificial fever (if I may ſo call it) which violent exerciſe raiſes in the blood, and will rather waſte than recruit his ſtrength and ſpirits.

BESIDES thoſe appertaining to the ſix things already mentioned, there are three other general rules greatly conducive to the preſervation of health, which muſt not be forgotten.

THE firſt rule is: Every exceſs is an enemy to nature. Whether it be in heat or cold, in grief or joy, in eating or drinking, or in any other ſenſual gratification, exceſs never fails to diſorder the body; whereas, to be moderate in every affection and enjoyment, is the way to preſerve health.

RULE the ſecond: It is dangerous ſuddenly* to alter a ſettled habit or an old cuſtom, and to fly from one extreme to ano-

* Semel multum et repente vel evacuare, vel replere, vel calefacere, vel refrigerare, aut alio quovis modo movere, periculoſum. Hippoc. aph. ſect 2. aph. 51.

ther. Even thoſe things which are in themſelves bad, as *dram-drinking, chewing tobacco, ſitting up late at night, ſleeping immediately after dinner, morning whets* as they are called, *&c.* when by long uſe they have unhappily grown familiar to any perſon, muſt not be broke off all at once, but ſhould be relinquiſhed by degrees.

THE third rule is, that whatever tends to impair our ſtrength, ſhould be carefully avoided. To bleed often, for inſtance, without an urgent cauſe; to take ſtrong purges or vomits; to go into a ſlender and vegetable diet raſhly, and rather from whim than neceſſity: All ſuch errors as theſe, I ſay, change the ſmall pipes, through which the circulation is performed, into impervious cords, and impair the ſtrength by drying up the conduits of life.

HAVING thus taken notice of the general rules to be obſerved by all, let us in the next place conſider the particular rules appropriated to the various temperaments, ages, and conditions of men.

CHAP.

CHAP. III.

Of the different temperaments of the human body, viz. *the choleric, the melancholic, the phlegmatic, and the ſanguine, with the rules of health relating to them, and ſome inferences deduced from them.*

TO be acquainted with the temperaments of men is of no ſmall importance to health. Hippocrates * ſays, "that "the human body contains four humours "very different with reſpect to heat, cold, "moiſture, and dryneſs, *viz.* blood, "phlegm, yellow bile, and black bile; "which ſeveral humours are frequently "brought up by vomiting, and diſcharged "by ſtool; that health conſiſts in a due "mixture of theſe four; and that diſtem-"pers are produced by a redundancy in a-"ny of them." Upon this obſervation of Hippocrates, the four principal temperaments of choleric, melancholic, phlegmatic, and ſanguine, have been eſta-

* De natur. hom. pag. 225, 226.

bliſhed.

bliſhed. But Galen *, too fond of ſubtilties and diviſions, has reckoned up nine temperaments, *viz.* four ſimple, the hot, the cold, the moiſt, and the dry; four compound, the hot and moiſt, the hot and dry, the cold and moiſt, the cold and dry; and one moderate or healthy temperament, conſiſting in a mediocrity that leans to no extreme.

THESE two great men, and their reſpective followers, mean nearly the ſame thing, tho' they differ in words; for the choleric of Hippocrates and his adherents has a great affinity with the hot and dry temperament of Galen; the phlegmatic with the cold and moiſt; the melancholic with the cold and dry; and the ſanguine of the one with the moderate temperament of the other; it will not therefore be of ſo great moment to determine which diviſion we ſhould adopt, as it will be to give a juſt notion of theſe temperaments, conſiſtently with the laws of circulation, to which the

* De temperament. lib. 2. cap. 1.

ancients

ancients were ſtrangers. To form therefore a diſtinct idea of the different temperaments which Hippocrates points out, (for I chuſe to follow him) it will be neceſſary to conſider what change is produced in the whole maſs of fluids, by the prevailing humours from which theſe temperaments take their names, and what effect this change has upon the human body and mind.

In choleric* temperaments, or in bodies abounding with yellow bile, the blood is hot and thin, moves with great rapidity through the pipes, diſpoſes the body to inflammations and acute diſtempers, and the mind to a promptneſs and impetuoſity in all its deliberations and actions. Perſons of this temperament ought to avoid all occaſions of diſpute, ſtrong liquors, violent exerciſe, and every thing by which they are apt to be overheated.

* Vid Hoffm. diſſert. de temperamento, fundamento morum et morborum in gentibus.

In melancholic temperaments, where perſons abound with a groſs, earthy, auſtere humour, called by the antients black bile, the blood is heavy and thick, moves ſlowly, diſpoſes the body to glandulous obſtructions, and lowneſs of ſpirits, and the mind to fear and grief. To ſuch perſons a healthy air, moderate exerciſe, light food, a little good wine, which ſhould be mixt with water for common drink, and chearful company, are the beſt means to preſerve health.

In phlegmatic temperaments, where there is a large proportion of a watery tenacious mucilage, the ſlimy blood moves languidly, diſpoſes the body to white ſwellings and dropſical diſorders, and the mind to ſtupidity and ſloth. In this temperament, a diet moderately attenuating, conſtant exerciſe, and ſome warm gentle phyſic at proper times, will prevent bad diſorders.

In ſanguine temperaments, where there is no redundancy of bile or phlegm, the blood

blood (except in cafes of fulneſs from high living, or inanition from hæmorrhages) circulates freely and equably through all the veſſels, which diſpoſes the body to health and long life, and the mind to chearfulneſs and benevolence. The principal care of ſuch perſons ſhould be, by a moderate and prudent uſe of all the neceſſaries of life, to avoid the extremes of plenitude and voluptuouſneſs, and every ſort of intemperance which may ſpoil a benign and healthy conſtitution.

It is true, that theſe temperaments are not eaſily diſtinguiſhed at firſt ſight, in every individual; but a conſiderate man may, by obſervation and experience, diſcover which temperament he himſelf principally partakes of, and conſequently may, by proper precautions, obviate any inconvenience apt to ariſe from it.

From what has been ſaid of theſe different temperaments, it will clearly follow, firſt, That there can be no ſuch thing contrived

trived by man, as an univerſal remedy to prevent or remove all ſorts of complaints, becauſe that which would agree with the hot, muſt diſagree with the cold. Beſides, all ſuch boaſted ſpecifics have been found ineffectual from experience, and every pretender to them has been convicted either of ignorance or diſhoneſty. In a word, none but he who had ſkill to create the human body, can contrive a ſpecific for all diſtempers; and I am fully perſuaded, that except the *tree of life*, there never was, nor will be an univerſal panacea.

It follows, ſecondly, That we cannot with certainty promiſe for any particular aliment, or any kind of medicine, that it will agree with this or the other individual, until we are acquainted with his peculiar temperament; and conſequently, that it is abſurd to preſcribe a method of diet or phyſic for any man, without ſuch a previous knowledge.

AFTER this ſhort ſketch of the temperaments, we come next to take a view of thoſe rules of health which are peculiar to the different periods of life.

CHAP. IV.

Of Infancy, youth, manhood, and old age; together with the precepts of health peculiar to each of them.

HAD the philoſopher, "whom Aulus "Gellius * introduces declaiming "againſt the unnatural behaviour of mo- "thers, who neglect to ſuckle their own "children," lived in our days, and known that men of rank and faſhion frequently chuſe their wives not for the graces of their perſon, or the virtues of their mind, but

* Lib. 12. cap. 1. Oro te, inquit, mulier, ſine eam totam integram eſſe matrem filii ſui; quod eſt enim hoc contra naturam imperfectum atque dimidiatum matris genus, peperiſſe, ac ſtatim ab ſeſe abjeciſſe? aluiſſe in utero ſanguine ſuo neſcio quid, quod non videret: non alere nunc ſuo lacte quod videat, jam viventem, jam hominem, jam matris officia implorantem?

only for the largeneſs of their fortune, he would perhaps, in compaſſion to the infant, have preferred a healthy diſcreet nurſe to a weakly capricious mother. Such parents therefore as have not taken care, by their own temperance, good humour and health, to ſecure a vigorous and happy conſtitution to their children, may ſurely be permitted to make up that deficiency as well as they can, in the choice of a proper nurſe.

THE firſt care to be taken of the infant, (in caſe the mother ſhould not be fit for the momentous taſk) is to chuſe a virtuous, healthy, chearful, cleanly and experienced nurſe. Her milk ſhould be white, ſweet, and of a good flavour, untainted with any foreign taſte or ſmell, between two and ſix months old, and of a thin rather than a thick conſiſtence. The child's other food ſhould be ſimple, and of very eaſy digeſtion; his cloaths ſhould neither be ſtrait nor too warm, and the nurſe ſhould be

diſcharged

diſcharged from uſing pins in dreſſing him, where there can be any danger of pricking his ſkin; and ſhe muſt give as much as he can bear of air and exerciſe.

To prevent rickets, ſcrophulous diſorders, coughs, and broken bellies, to which children are very liable in this iſland, the moſt likely means would be to introduce the cuſtom of dipping their whole bodies every morning in cold water, after which they ſhould be immediately rubbed dry and dreſſed; deferring nevertheleſs the commencement of this practice for ſome months, or to the next ſummer after the infant is born, leſt there ſhould be too quick a tranſition from the warmth in which the fœtus was formed to the extreme coldneſs of the water. If the infant becomes warm and lively upon riſing out of the bath, there can be no danger in this immerſion; but in caſe he ſhould remain chilly and pale for a conſiderable part of the day, the uſe of the cold bath muſt be laid aſide for ſome time, and may be tried again when the child grows ſtronger.

When the firſt dawn of reaſon appears in children, the parents ſhould take the earlieſt care poſſible to make their minds obedient to diſcipline, and "gradually* inſtil into them that great principle (as "Mr. Locke calls it) of all virtue and "worth, *viz.* to deny themſelves their "own deſires, and purely follow what "reaſon dictates as beſt, tho' the appetite ſhould lean the other way. We "frequently ſee parents, by humouring "them when little, corrupt the principles "of nature in their children, and wonder "afterwards to taſte the bitter waters, "when they themſelves have poiſoned the "fountain; why ſhould we think it "ſtrange, that he who has been accuſtomed to have his will in every thing when "he was in coats, ſhould deſire it, and "contend for it, when he is in breeches?"

And in this our judicious author has adopted or confirmed the remark which

* Locke on education.

the

the admirable Quintilian made long before him, part of whoſe words * I have quoted at the bottom of the page; and indeed we frequently ſee, that thoſe indulgences to the child have grown into ſettled habits, and proved the ruin of the man, with reſpect both to his health and his morals.

Of YOUTH.

THE diet of youth ſhould be indeed plentiful, as Hippocrates adviſes †, but ſimple, and of eaſy digeſtion; becauſe food which cannot be well digeſted breeds groſs humours, and imperceptibly lays a foundation for ſcurvy, ſtone, rheumatiſm, and other very bad diſtempers. Wine alſo, or ſtrong drink, ſhould never, or very ſparingly, be allowed to youth. They ſhould be kept intirely from unripe fruit, and from

* Utinam liberorum noſtrorum mores ipſi non perderemus, infantiam ſtatim deliciis ſolvimus. Mollis illa educatio, quam indulgentiam vocamus, nervos omnes et mentis et corporis frangit.——Fit ex his conſuetudo, deinde natura. Inſtit. orat. lib. 1. cap. 2.

† Sect. 1. aph. 13.

too

too much of what is ripe. Their exerciſe ſhould be moderate, for too little would bloat them and make them ſhort breathed; and too much would waſte their ſtrength. Too much ſleep alſo (like too little exerciſe) would ſtupify them, and too little would render them thin and ſubject to fevers.

But, above every other care and conſideration, youth is the moſt proper ſeaſon to inure the mind to the practice of virtue, upon which their future health and reputation muſt depend, and without which it will be impoſſible to deliver their conſtitutions unbroken to manhood and old age. Many vices are abſolutely inconſiſtent with health, which never dwells where lewdneſs, drunkenneſs, luxury, or ſloth, have taken poſſeſſion. The life of the rake and epicure is not only ſhort but miſerable. It would ſhock the modeſt and compaſſionate to hear of thoſe exquiſite pains and dreadful agonies which profligate young perſons

ſuffer

ſuffer under the reiterated courſes of their debauchery, before they can reach the grave into which they often hurry themſelves: Or, if ſome ſtop ſhort in their career of riot, before they have quite deſtroyed the ſprings of life, yet theſe ſprings are generally rendered ſo feeble and crazy by the liberties which they have already taken, that they only ſupport a gloomy, diſpirited, dying life, tedious to themſelves, and troubleſome to all about them; and (which is ſtill more pitiable) often tranſmit their complaints to an innocent unhappy offspring.

THE expediency of virtue towards the preſervation of health, is no new doctrine with thoſe who ſtudied and recommended that art; it was taught many ages ago by Galen, who, ſpeaking of youth, expreſſes himſelf in the manner following: "This * "is the proper ſeaſon to diſcipline the

* De ſan. tuend. lib. 1. cap. 12. Vide inſuper ejuſdem libellum de cognoſcend. et curand. animi morbis. cap. 7.

"mind,

" mind, and train it up in virtuous habits,
" eſpecially in modeſty and obedience,
" which will prove the moſt compendious
" method to attain whatever may be ne-
" ceſſary towards the health of the body
" in the future periods of life."

But how ſhall giddy youth, hurried away by ſtrong appetites and paſſions, be prevented from running into thoſe exceſſes which may cut them off in the prime of their days, or at leaſt hoard up diſeaſes and remorſe for old age? I anſwer, that their paſſions and appetites muſt be reſtrained early by proper diſcipline and example. This is to be done by their parents, whoſe firſt care ſhould be to train up their children at home in " the way
" they ſhould go, that when they are old
" they may not depart from it."

In the next place, ſuch as can afford their ſons a liberal education, ought to ſend them, for inſtruction and example, to thoſe ſeminaries of learning where religion and virtue are held in the higheſt eſteem,

and

and practiſed with the greateſt care and decency; for ſuch an education will not only prove a benefit to the youth themſelves, but a bleſſing alſo to the community, which is always ready to imitate as well the good as the bad example of their ſuperiors.

We have reaſon to felicitate our youth upon the many opportunities which they have of a virtuous education in the excellent univerſities of Great Britain. Oxford is certainly one of the moſt commodious reſidences for ſtudy on the face of the earth. I was never ſo charmed with any place of public reſort as I was with that univerſity. *There* religion, learning, and good manners appear in all their beauty. *There* ignorance, vice, and infidelity are reputed clowniſh and contemptible: And *there* the Virtues and the Graces are united, or in other words, the knowledge of the ſcholar is joined with the politeneſs of the gentleman. I never indeed had the good fortune to be at Cambridge, but from the great and good men which that uni-

verſity has produced, it is reaſonable to conclude, that ſhe is not inferior to her ſiſter of Oxford. Nor have the ſeveral univerſities of Scotland been at any time deſtitute of maſters or ſcholars, conſpicuous for genius, literature or virtue.

THOSE gentlemen, therefore, who ſend their ſons abroad for a foreign education, before they are grounded in virtue and learning at our own univerſities, ſeem to have no great value for the *future health and dignity of their children*, or (give me leave to add) for the *proſperity of their country* *.

Of MANHOOD.

To this period belong all the general rules of health before mentioned, and, in a word, all theſe rules that are not diſtinctly appropriated to infancy, youth, or old age.

* "What can be expected from thoſe young adventurers, but an importation of all the follies, fopperies, vices, and luxuries of the ſeveral countries through which they have paſſed." Sherridan on Britiſh education, book 1. chap. 2. page 32, 33.

THE beſt ſecurity to health in this period is the good habit of temperance and moderation, tranſmitted to it from childhood and youth; for a man arrived to the perfect uſe of his reaſon, is not very apt (unleſs he lays reflexion quite aſide) to indulge any vicious appetites over which he had an abſolute command in the former part of his life.

IT is alſo reaſonable to expect that a perſon will, in this period, attend to the temperament moſt predominant in himſelf, whether it inclines to the choleric, melancholic, phlegmatic or ſanguine, and will regulate his way of living in ſuch a manner that his peculiar temperament ſhall be kept within the bounds neceſſary to the conſervation of health; or (which is the ſame thing) that he will be careful to avoid whatever he finds by experience to be detrimental to his health, and will perſiſt in the uſe of ſuch things as he finds by the ſame experience and obſervation to agree with him; ſeriouſly reflecting how eaſy it is either

ther by a ſupine indolence, or by criminal exceſſes, to deſtroy even a good conſtitution in the prime and vigour of life, beyond the poſſibility of repair: Of this unhappy conduct too many ſad examples fall within the circle of every man's acquaintance.

Of Old Age.

Health is an invaluable bleſſing in age, when the judgment arrived at full maturity, diſplays more ſtrength and beauty than ever it did before; and therefore it ſhould be ſecured, as far as lies in our power, by a diligent obſervation of the following plain rules, which point out to the aged, firſt what they ought to avoid, and ſecondly what they ought to purſue.

In the firſt place, old people muſt be careful to avoid whatever they have by experience found always hurtful to them in the former part of their lives, for age is not the proper ſeaſon to ſtruggle with new or unneceſſary evils. They muſt alſo ſhun

every

every exceſs that has a natural tendency to impair their remaining ſtrength; for tho' men may ſometimes eſcape the bad effect of thoſe exceſſes in the vigour of life, old age would quickly be demoliſhed by them; ſuch are too much care and anxiety about wealth, an over aſſiduous application to ſtudy, habitual fretfulneſs, or, in a word, whatever is known to weaken * a good conſtitution.

Secondly, As to what they ought to purſue. Old men ſhould be careful to practiſe the following important rules. *Firſt*, To chuſe a pure and healthy air for the place of their reſidence. *Secondly*, To adjuſt their diet to their exerciſe; to be moderate in both; to retrench a little in their ſolid food, and add proportionably to their drink; and to riſe from meals always with ſome appetite to eat more; but in caſe of

* Exceſſive Venery enervates old men extremely. The Adventurer, in one of his admirable eſſays, humorouſly applies to them what Virgil reports of his fighting bees, *animaſque in vulnere ponunt.*

any accidental exceſs one day, to retrench the next, or for a longer ſpace, unleſs the ſtomach is quite eaſy. *Thirdly*, To contrive that their evacuations be regular by nature or by art. *Fourthly*, To ſtudy every means that can contribute to make their night's reſt ſweet, and their ſleep ſound; for quiet ſleep wonderfully cheriſhes old people. *Fifthly*, To be clean and neat in their perſons, and to keep their bodies well clothed, eſpecially their ſtomach, legs and feet, without which they cannot enjoy a good ſtate of health: And, *ſixthly*, To be of a contented chearful mind, and endeavour to render their behaviour and converſation agreeable to, and courted by young people, and to be frequently in their company.

CHAP.

CHAP. V.

Of the various conditions and circumſtances of men conſidered, as robuſt or delicate, free or ſervile, wealthy or indigent: together with the rules of health accommodated to them reſpectively.

THE ſeveral conditions and circumſtances of men, ſuppoſed to enjoy their uſual health, may be reduced to two ſorts, *viz.* internal and external. The internal conditions of men are ſtrength, or weakneſs of conſtitution. Their external circumſtances are either wealth and freedom, which enable them to live as they pleaſe; or ambition and poverty, which bind them down to ſplendid or obſcure ſervitude, and other inconveniencies.

PERSONS of a healthy and ſtrong conſtitution, ſhould obſerve the two following rules. The firſt is, to avoid a preciſe and uniform diet, and to diverſify their method of living; to be ſometimes in the city, and

ſome-

ſometimes in the country; to eat and drink ſometimes more, and ſometimes leſs than uſual, but always within the bounds of temperance; to partake of whatever wholeſome food comes in their way, be it ever ſo ordinary; to uſe at one time little, at another much exerciſe; and in ſhort, by a various life, to be always prepared, and ready to fall in with any condition which may be appointed for them by providence.

THE ſecond rule is, to be cautious not to deſtroy in their gay days of pleaſure and health, by any great exceſs or debauchery, that vigour of conſtitution which ſhould ſupport them under unavoidable infirmities.

ON the other hand, perſons of a tender and delicate habit of body, (among whom Celſus reckons moſt of thoſe who live in great cities, and all the ſtudious and contemplative) ſhould endeavour to repair by their temperance, regularity, and care, what is perpetually impaired by their weakneſs,

neſs, ſituation and ſtudy: And, in effect, we often ſee that perſons of a weakly conſtitution, who are immediately injured by any exceſs, and conſequently obliged to be careful in the management of their health, live more comfortably, and longer than thoſe of a robuſt conſtitution, who, from a vain confidence in their vigour, are apt to deſpiſe all rules and order.

As to external circumſtances; thoſe who, by birth or acquiſition, are poſſeſſed of a fortune which makes them able, and of a diſpoſition which makes them free to live as they pleaſe, having it in their power to put every rule in practice that can conduce to the preſervation of their health, are to blame if they neglect ſo great a bleſſing, which every man will know the value of when once he has loſt it.

THOSE again, who either by choice are engaged to ſerve the public, or by poverty obliged to ſerve private families, and are not at liberty to beſtow much time or care

on their health, muſt make the beſt uſe they can of ſuch opportunities as their engagements will afford them. Every condition has ſome vacant hours, which may be employed to the purpoſe of health. "The "emperor Antoninus, ſays Galen, who "diſpatched ſo much buſineſs in the day, "began his exerciſe always about ſun-ſet." It is important for a ſtateſman to obſerve, that "the more buſineſs he has been fa-"tigued with upon any particular occaſi-"on, the more temperately he ought to "live;" and that he ſhould not at ſuch times, eat any thing hard of digeſtion, or drink more wine than what is juſt ſufficient to refreſh him.

It is moreover to be obſerved, that perſons of all ranks who eat and drink freely, and are at the ſame time ſo much confined by their employments, as to be able to uſe little or no exerciſe abroad, ſhould be ſure to uſe ſome exerciſe within doors, of which a great variety may be contrived to every man's taſte, as ſhuttle-cock, billiards,

billiards, hand-ball, dumb bell, *&c.* and ſhould alſo frequently chafe his body with a fleſh bruſh in the morning, and now and then take ſome very gentle phyſic, to carry off what may remain indigeſted in his ſtomach and bowels.

To conclude, the poor, if they are virtuous and cleanly, have great advantages over the rich, with reſpect to health and long life, as the narrowneſs of their circumſtances prompts them to labour, and withdraws all temptations to luxury.

CHAP. VI.

Of the prophylaxis, or ways to prevent approaching diſtempers.

IN the beginning of this ſecond part I obſerved, that the art of preſerving health might be divided into three branches, whereof the firſt points out the rules calculated to maintain the health we enjoy at preſent. The ſecond treats of the beſt method to prevent diſtempers; and the

the third directs the way to long life. I have already ſpoke of the firſt branch. The precepts which relate to the two following will be but few.

When diſtempers are perceived to make their approach, they ſhould be prevented, by removing their cauſes as ſoon as poſſible. "A man, ſays Galen *, ſeems to be in a "middle ſtate between health and ſickneſs, "when he has ſome ſlight ailment that "does not confine him to bed or from bu-"ſineſs, ſuch as an inconſiderable head-"ach, loſs of appetite, ſome unuſual "wearineſs, weight or drowſineſs: but it "is the part of a wiſe man to prevent "thoſe ſmall diſorders from growing "worſe, by correcting without delay the "diſpoſition by which they are propagat-"ed. If, for example, the beginning "complaint ariſes from too great a fulneſs, "that fulneſs ſhould be diminiſhed by ab-"ſtinence, or (if abſtinence is not ſuffi-"cient) by bleeding, purging or ſweating.

* De medic. art. conſtitut. cap. 19.

"If

" If it ariſes from crudities, and indigeſti-
" on, the remedy to prevent its growing
" worſe, is to keep one's ſelf warm, to
" live abſtemiouſly and quietly for ſome
" days, and to drink a little good wine
" to ſtrengthen the ſtomach. And in gene-
" ral we ſhould endeavour (continues he)
" to remove the preſent ſlight complaint
" by purſuing a method, in its tendency
" and effects directly contrary to the cauſe
" which produced that complaint; or, in
" other words, thick humours muſt be at-
" tenuated; acrimonious and redundant
" humours corrected and diſcharged;
" crude humours concocted; contractions
" relaxed, and obſtructions opened."

WHEN a beginning cold or cough threatened an impending fever, the ſagacious Sydenham frequently * removed the cough, and prevented the fever, by preſcribing air and exerciſe, and a cooling ptiſane for drink, together with abſtinence from fleſh meat, and ſtrong liquors.

* De tuſſ. epidem. pag. 207, 208.

BOERHAAVE,

BOERHAAVE, who had ſtudied all the ancient and modern phyſicians of any reputation, and knew perfectly well how to extract what was moſt uſeful from their ſeveral writings, has, in his Prophylaxis *, recommended the three following excellent precepts to prevent diſtempers.

1. As ſoon as we perceive from certain ſymptoms, ſays he, that any diſtemper is approaching, we ſhould prevent it, by purſuing a method oppoſite to the cauſe which is likely to produce it: And this method chiefly conſiſts in uſing the following means, *viz.* "We muſt, in the firſt place, practiſe "abſtinence and reſt, and drink ſeveral "draughts of warm water. We ought, "in the next place, to uſe ſome moderate "exerciſe, and perſiſt in it until a gentle "ſweat begins to break out; after which "we ſhould immediately go into a warm "bed, and there indulge a free perſpirati-"on, and ſleep as long as conveniently

* Inſtit. medic. ſect. 1049.

"we

" we can; for it is obvious that by theſe
" means the veſſels are relaxed, groſs hu-
" mours are diluted, and noxious humours
" diſcharged; and thus impending diſtem-
" pers are prevented by removing their
" cauſes.

2. " To guard againſt diſtempers in ge-
" neral, there cannot be a more uſeful pre-
" caution in our climate, than to keep up
" a free and uniform perſpiration by not
" laying aſide our winter garments before
" a warm May; and by putting them on
" again before a cold November.

3. " In ſummer (continues he) our diet
" ſhould be light, ſoft, and mild; our
" drink cooling; and our exerciſe gentle.
" In winter, on the contrary, our food
" ought to be ſolid, dry and ſavoury, warm-
" ed with a little good wine; and the ex-
" erciſe vigorous. In ſpring and au-
" tumn the aliment and exerciſe ſhould
" keep a medium between both, but lean-
" ing to thoſe of ſummer or winter, as

" one

"one is more or leſs affected with the "heat or cold."

To the directions of theſe great men, I ſhall ſubjoin a ſimple and eaſy method of preventing impendent diſtempers, frequently practiſed with good ſucceſs, *viz.* When you find yourſelf indiſpoſed, go directly to bed, and there ly for one, two, or three days, until your complaints are removed; living all the while on water gruel or panada for food; and on water or ſmall warm negus, or white wine whey for drink. Your gruel or panada may be made more or leſs ſubſtantial as you require them. This is very nearly the advice of Celſus, an author of no mean reputation, whoſe ſentiments *

* Igitur ſi quid ex his (*notis futuræ adverſæ valetudinis*) incidit, omnium optima ſunt quies et abſtinentia: ſi quid bibendum, aqua; idque interdum uno die fieri ſatis eſt; interdum, ſi terrentia manent, biduo: proximeque abſtinentiam ſumendus cibus exiguus, bibenda aqua, poſtero die etiam vinum, deinde alternis diebus, modo aqua, modo vinum, donec omnis cauſa metus finiatur. Per hæc enim ſæpe inſtans gravis morbus diſcutitur.——— Neque dubium eſt, quin vix quiſquam, qui non diſſimulavit, ſed per hæc morbo maturè occurrit, ægrotet. Lib. 3. cap. 2.

to

to the ſame effect, expreſſed with aſſurance of ſucceſs, may be ſeen at the bottom of the preceeding page.

And tho' ſome may deride the ſimplicity of this preſcription, they will find that where ſuch food agrees with the ſtomach, and time can be ſpared to make the experiment, it will prove more beneficial than they may imagine. I have been often told by a lady of quality, whoſe circumſtances obliged her to be a good oeconomiſt, and whoſe prudence and temperance preſerved her health and ſenſes unimpaired to a great age, that ſhe had kept herſelf out of the hands of the faculty many years, by this ſimple regimen. Gruel indeed is a very inſipid diet to a perſon of a nice palate. Plutarch, in his life of Lycurgus, tells that one of the kings of Pontus, who loved good eating, having heard great encomiums made on the *black broth of Sparta*, hired a cook from that city. But when he came to taſte this celebrated diſh, he called immediately for his cook, and with ſome

warmth told him, that it was a vile abominable meſs. To which the other modeſtly replied, *Sir, to make this broth reliſh well, a man muſt bathe himſelf in the river Eurotas* *.

CHAP. VII.

Of longevity.—The natural marks of it.—The means of attaining it.—The riſe and fall of the tranſfuſion of blood from one animal into another. The concluſion.

I HAVE already obſerved, that when the continual attrition of the ſolids and fluids of the human body againſt each other, is hurried on with violence, death muſt advance haſtily, and arrive early; but when it is performed with moderation, the ſprings of life laſt longer, and death is more ſlow in its approaches.

* A river of Laconia, running by Sparta, ſo that *to bathe in Eurotas*, means *to imitate the diſcipline and temperance of the Lacedemonians.*

LONGEVITY may proceed either from nature or from art; but chiefly from their happy conjunction.

THE natural marks by which we diſcern that a man is made for long life, are principally as follows:

1. To be deſcended, at leaſt by one ſide, from long lived parents.

2. To be of a calm, contented, and chearful diſpoſition.

3. To have a juſt ſymmetry, or proper conformation of parts; a full cheſt, well formed joints and limbs, with a neck and head large rather than ſmall in proportion to the ſize of the body.

4. A firm and compact ſyſtem of veſſels and ſtamina, not too fat; veins large and prominent; a voice ſomewhat deep; and a ſkin not too white and ſmooth.

5. To be a long and ſound ſleeper.

THE

THE great aſſiſtance which art affords towards attaining long life, ariſes from the benefit of good air * and good water †, from a frugal and ſimple diet, from the

* Braſiliæ ſalubritatis fama non paucos olim ſenes, alioſque minus proſperâ utentes valetudine, ex Hiſpania, et Indiis, aliiſque diſſitis locis, excivit ad aërem et aquas has cælo datas, tanquam ad duo validiſſima præſidia vitæ et valetudinis. Perquam maturè enim pubeſcunt incolæ: ſeneſcunt tarde, idque ſine canitie aut calvitio. Quo fit, quod longè ultra centeſimum ætatis annum, viridi ſenectâ, non Americani tantum, ſed et ipſi Europæi fruantur, totumque adeo terrritorium *Macrobium* dici mereatur. Guil. Piſonis hiſt. nat. et medic. Braſiliæ. continentis.

† Audio in Ægypti locis homines vivere longiorem vitam quam alibi, (dicit Melchior Guilandinus) quando ipſorum permulti annos plus centum vivunt: communis fere omnibus iis habitatoribus vita annorum nonaginta ſolet eſſe.——Aquæ Nili fluminis clarefactæ, dulces, tenuiſſimæ, ſplendidiſſimæ atque leviſſimæ exiſtunt, ita ut celerrimè corporis viſcera permeent. Audio etenim (quod olim, cum Cayri moram facerem, etiam obſervavi) in ſingulis fere corporibus ab ipſis epotis aquis ſtatim vel copioſas urinas, vel ſudores, vel per alvum dejectiones obſervari, atque in hypochondriis nullam fluctuationem ab ipſis oſtendi: loquor de iis quæ Cayri habentur et potantur, quando Alexandriæ aquæ conſtent ſubſtantiâ craſſiori, quæ peſſimæ exiſtunt, tardiſſiméque viſcera permeant. Confirmo tuam ſententiam, (reſpondet Alpinus) atque me in omnibus corporibus obſervaſſe, citiſſime illas aquas Cayri clarefactas, vel per alvum, vel per per urinam, vel ſudorem exiiſſe. Proſper Alpinus de medic. Ægypt. lib. 1. cap. 11. et 12.

wiſe

wiſe government of our appetites and paſſions, and, in a word, from a prudent choice and proper uſe of all the inſtruments of life, and rules of health, of which we have ſpoke before.

But ſome of the moderns have gone farther, and recommended new and bold methods to prolong life, which the antients either had not perſpicacity to diſcern, or wanted reſolution to practiſe. The comprehenſive and exalted genius of lord Verulam was not to be limited by common rules. He adviſes old people "once e-"very two years to change their whole "juices, and render themſelves very lean "by a courſe of abſtinence and proper di-"et-drinks, in order to ſweeten their blood "and renew their age." And Boerhaave*, who like the induſtrious bee collected honey from every flower, adopts his lordſhip's opinion with ſome ſmall amendment; for, ſpeaking of the moſt proper diet to attain

* Inſtit. med. num. 1059—1062.

longevity,

longevity, he expreſſes himſelf in the manner following; "Great abſtinence, or an "extremely ſlender, drying and emaciat- "ing diet now and then, but very rarely "put in practice, is of wonderful uſe to "attain longevity." And a little lower he explains his meaning more perſpicuouſly, by telling us, that "a radical, or almoſt "total change of the humours by reſol- "vent medicines, and a ſucceeding diſ- "charge of them out of the body, ſuch "as happens under a courſe of mercury, "or under a courſe of attenuating, drying, "and ſudorific decoctions, often diſpoſe "the body in an admirable manner, to "expel old diſtempered humours, and to "fill the veſſels with freſh vital juices." And thus art, conducted with prudence, may effectually lead to long life.

But how far this method of renewing their age may be ſafely practiſed by old people, I will not take upon me to determine, ſince the ſucceſs muſt, in a great meaſure,

ſure, depend upon the goodneſs of their ſtamina, the ſtrength and perſeverance of their reſolution, and the ſkill of the artiſt who conducts the regimen. And though this and the following brave but unſucceſsful effort to prolong life, diſcover a quick penetration and a laudable boldneſs of the human mind; yet a ſure and eaſy road to longevity, different from the general rules of health already mentioned, ſeems to be among the deſiderata in our art, the diſcovery of which is reſerved, perhaps, for a more meritorious generation.

About a hundred * years ago, a new and gallant effort was made to mend diſtempered conſtitutions, and conſequently to prolong life, by ſupplying the human body with young and healthy blood from other animals.

The firſt hint of this great attempt was given at Oxford, *anno* 1658, by Dr. Chriſtopher Wren, Savilian Profeſſor of aſtronomy

* See the original tranſactions of the royal ſociety, vol. 1.

there,

there, who propoſed to the honourable Mr. Boyle, a method of *transfuſing* liquors into the veins of living animals.

In 1666 his hint was farther improved, at the ſame perennial ſource of ingenuity and learning, by Dr. Richard Lower, who invented the method of *transfuſing* blood out of one animal into another.

He was followed by ſeveral ingenious men at London, and particularly by Dr. Edmund King, who rendered Lower's method of transfuſion ſtill more eaſy and commodious. And as it was intended by the royal ſociety that thoſe trials ſhould be proſecuted to the utmoſt variety which the ſubject would bear, by exchanging the blood of old and young, ſick and healthy, fierce and timid animals; various experiments were accordingly made with ſurpriſing effects upon lambs, ſheep, dogs, calves and horſes, *&c.*

From England this invention paſſed into France and Italy, where after old, de-

crepid

crepid and deaf animals had their hearing, and the agility of their limbs, reſtored by the transfuſion of young and healthy blood into their veins, and other wonderful cures had been atchieved, J. Denis, doctor of phyſic at Paris, with the aſſiſtance of Mr. Emerez, ventured to perform the operation on men in that city: And Johann. Gulielm. Riva *, a ſurgeon of good reputation, made the ſame experiments at Rome.

AFTER ſome trials, Monſieur Denis publiſhed one account of a young man that was cured of an uncommon lethargy, (ſubſequent to a fever in which he had been blooded twenty times) by *transfuſing* the arterial blood of a lamb into his veins: And another account of the cure of an inveterate and raging phrenzy performed on a man thirty-four years old, by *transfuſing* the arterial blood of a calf into his veins, in the preſence of ſeveral perſons of quality and learning.

THIS daring enterprize having ſucceeded ſo well at the firſt ſetting out in France, it

* Vide Merklin. de ortu et occaſu transfuſ. ſang. Edit. Norimberg, *anno* 1679.

was alſo practiſed in England from the arteries of a young ſheep, into the veins of one Mr. Arthur Coga, November the 23d, *anno* 1667, at Arundel-houſe, before a ſplendid company, by Dr. Edmund King, and Dr. Richard Lower. And Coga publiſhed, under his own hand, an account of the great benefit which he received from the operation. But unfortunately this *tranſfuſion* happened to be ſoon after performed in France and Italy with bad ſucceſs on ſome perſons of diſtinction* ; by which unhappy accidents the practice (being yet in its infancy, and unſupported by a ſufficient number of experiments) fell into diſcredit, and was prohibited by the king's authority in France, and by the pope's mandate at Rome.

THUS was defeated a noble eſſay, begun with prudence in England, but raſhly purſued in foreign countries, which, had the firſt trials on the human ſpecies been con-

* It was imprudently and fatally tried in France on baron Bond, ſon to the firſt miniſter of ſtate in Sweden, after he was given over by his phyſicians, and his bowels began to mortify ; and had the ſame ill fate at Rome, being injudiciouſly tried on a perſon juſt worn out with a conſumption. Vide Merklin. de ortu et occaſu tranſf. ſang.

ducted

ducted with care and caution, might in time have produced moſt uſeful and ſurpriſing effects.

But after all, I am of opinion, that the greateſt efforts of the human mind to extend a vigorous longevity much beyond fourſcore, will generally prove ineffectual; and that neither the total alteration and diſcharge of old diſtempered humours, by a courſe of reſolvent medicines, nor the ſubſtitution of freſh vital juices in their room, preſcribed by the great lord Verulam and Boerhaave; nor the transfuſion of young blood into old veins, tho' performed with the utmoſt precaution and dexterity, will ever avail to beſtow ſtrength and vigour on the bulk of mankind, for any great number of years, beyond the limits marked out by the Pſalmiſt, and much leſs to produce rejuveneſcency. Tho' I am perſuaded, at the ſame time, that theſe methods proſecuted to accuracy, and reduced, if poſſible, to a general and eaſy practice, would make the life of man hold out, free from the uſual complaints of decrepitude, longer than it does at preſent, ſince

we

we ſee every day, that an extraordinary ſtrength of conſtitution, managed with common prudence, often exceeds an hundred years *.

LET us in the mean time make the beſt uſe of thoſe advantages which we can eaſily compaſs. Let us, by a virtuous courſe of life, and by the practice of ſuch rules as the experience of ages has eſtabliſhed, endeavour to preſerve health of body and ſoundneſs of mind, until we arrive at the boundaries which providence (unleſs we are our own enemies) ſeems to have nearly marked out for our reſpective conſtitutions. And then let us chearfully ſubmit to have the curtain drawn for a little while between our friends and us; and be ready and willing to enter into that happy ſtate for which we were originally intended, and where we ſhall be ſecure from the approach of age and infirmities.

PERMISIT 24 DE 74

* See the diligent and good biſhop of Bergen's natural hiſtory of Norway, where he relates from credible vouchers, that in the year 1733, four married couple danced in the preſence of Chriſtian VI. king of Denmark, whoſe ages joined together, amounted to more than eight hundred years, none of the four couple being under an hundred. Part 2. chap. 9. ſect. 8.

FINIS.